[illegible]

(Arithmetics for Class - I to X)

[illegible]

ᱮᱞᱠᱷᱟ ᱯᱟᱛᱟᱵ

(Arithmatics for I to X)

ᱦᱟᱡᱟᱢ ᱵᱟᱥᱠᱮ

Elkha Patab

A Santali medium arithmatics for Class I to X

by **Hajam Baskey**

1st Edition : 30th April 2018

ISBN 978-81-937117-0-5

© Hajam Baskey

Published by :

HANS HANSLI PUBLICATION

Baripada, Mayurbhanj, Odisha

Mob. : 9937134594, 9439284862

Email - hanshanslipublication@gmail.com

D.T.P. and Print :

RAHLA DIGITAL

Station Bazar, Baripada

Price : Rs. 100/-

ᱩᱱᱤ ᱨᱮᱱᱤ ᱠᱟᱹᱦᱤᱱᱤ

ᱥᱟᱱᱛᱟᱲ ᱯᱟᱹᱨᱜᱟᱹᱱᱟᱜ ᱡᱷᱟᱞᱤ ᱟᱨ ᱯᱟᱹᱨᱥᱤ ᱞᱮᱞᱮ ᱠᱟᱱᱟ ᱵᱷᱟᱨᱛ ᱟᱨ ᱱᱟᱜᱟᱢ ᱠᱚᱢᱟᱨᱵᱟᱱᱤ ᱠᱚᱣᱟᱜ ᱛᱮᱞᱟ ᱮᱢ ᱚᱱᱟ ᱫᱤᱥᱟᱹᱢᱟᱜ ᱠᱟᱱᱟ ᱜᱮᱭᱟ । ᱡᱟᱱᱟᱢᱟᱜ ᱟᱨᱜᱮ ᱥᱮᱫᱟᱭᱟᱜ ᱩᱨᱟᱹᱜ ᱜᱮᱭᱟ । ᱫᱟᱨᱮ ᱚᱨᱡᱟ ᱥᱟᱥᱟᱱᱫᱥᱟᱥᱟᱥ ᱮᱢ ᱚᱱᱟ ᱣᱥᱟᱹᱥᱜ-ᱟ । ᱥᱮᱱ ᱠᱚ ᱫᱥᱟᱥᱮ ᱯᱟ.ᱜᱟᱨ ᱚᱨ ᱟ.ᱢᱟ ᱠᱚᱩ ᱣᱚᱡ ᱜᱨ ᱠᱥᱟᱥᱩᱥᱦᱥ ᱟᱨᱮᱫ ᱩᱨᱮᱱᱟᱜ ᱚᱟᱮᱱ । ᱚᱞᱚᱨ ᱥᱮᱠᱥᱣᱚ ᱯᱟᱹᱨᱣᱟᱹᱩ ᱠᱚ ᱚᱟᱮᱯ ᱚᱟ ᱮᱥᱯᱟ.ᱩ ᱠᱚᱩᱟ । ᱡᱚᱚᱚ ᱣᱚᱫᱟᱜ ᱠᱥᱟᱥᱩᱥᱦᱥ ᱡᱥᱮᱨ ᱜᱚᱫᱟ ᱜᱚᱫᱟᱫ ᱚᱟᱣᱨ'ᱮᱟ ᱨᱮᱟ.ᱠᱟᱟᱮ ᱯᱟᱣᱟᱮᱚᱨ ᱣᱚᱟᱟ ᱟᱨᱚᱮ ᱯᱨᱚᱨᱮ ᱨᱮᱨᱜ-ᱟ । ᱟᱫᱮ ᱟ.ᱫᱨᱮ ᱚᱟᱫᱟᱩ ᱢᱟᱣᱟᱟ ᱟᱨᱣᱚ' ᱠᱟᱨᱟᱩᱟᱫ ᱣᱚᱫᱮᱨᱮᱜ ᱯᱟᱣᱟᱮᱚᱨ ᱣᱚᱟᱟ ᱣᱚ' ᱡᱥᱮᱨ ᱚᱚ ᱯᱨᱚᱨᱮ ᱥᱚᱜᱚᱜ-ᱟ ᱨᱮᱟ. ᱠᱟᱟᱮ ᱯᱚᱜᱚᱮ ᱜᱨ ᱯᱟᱣᱟᱮᱚᱨ ᱣᱚᱟ ᱮᱚᱚᱚ ᱥᱨᱯ ᱥᱟᱩ ᱜᱨᱟᱟ । ᱚᱨᱣᱨᱥ ᱥᱚᱫᱟ ᱟᱚᱟᱟᱚ ᱡᱥᱜᱫ ᱟᱨ ᱟᱨᱠᱟ. ᱠᱨᱜ-ᱟ.ᱥ ᱚᱨᱮᱟ.ᱜ ᱜᱟᱮ ᱯᱟᱣᱟᱮᱚᱨ ᱣᱚᱟ ᱠᱚᱜᱚᱜ ।

ᱨᱚᱥᱮ ᱟᱮᱟᱟ ᱟᱨ ᱟᱯᱚᱜ ᱫᱨᱚᱨᱮᱨᱜᱟ. ᱠᱚ ᱚᱨᱮᱟ.ᱜ ᱨᱦᱠᱨᱦᱟᱚᱨ ᱟᱨᱠᱚ ᱥᱥᱟᱥᱜ ᱠᱟᱮᱟ ᱟᱮᱟ ᱠᱚ ᱥᱜᱣᱟ.ᱟ ᱠᱟᱚᱨ ᱟᱨᱠᱟ. ᱠᱨᱜ-ᱟ.ᱥ ᱨᱯᱠᱟᱟ ᱨᱮᱨ ᱠᱟᱚᱨ ᱚᱥᱩᱟ.ᱯ ᱟᱟ ᱮᱨᱮᱟ. ᱥᱮᱥᱜ ᱯᱟ.ᱜᱨᱮ । ᱟᱮᱚ ᱟᱮᱟ ᱚᱟᱣᱨ'ᱮ ᱠᱟᱮᱟ ᱥᱚᱟᱟ ᱚᱨ ᱟ.ᱢᱨ ᱜᱟᱮ ᱜᱨ ᱥᱫᱠᱟ.ᱟᱚᱜ-ᱟ ᱩᱨᱮᱚᱨ । ᱡᱥᱮᱨ ᱟᱠᱟ ᱠᱚᱟᱨ ᱚᱟᱮ ᱚᱨᱜᱥᱜᱮᱜ ᱠᱟᱮᱟ ᱮᱨᱮᱟ. ᱚᱟᱮ ᱥᱮᱥᱜᱟ । ᱚᱨᱮᱟ.ᱜ ᱜᱟᱮ ᱟ.ᱟᱟ. ᱠᱚᱣᱚ' ᱮᱚᱮᱚᱟ ᱟᱠᱟᱮᱟ ᱡᱟᱣᱟ' ᱠᱚ ᱥᱟᱩᱟ ᱜᱨ ᱟ.ᱜᱠᱟ.ᱩ ᱜᱚᱮᱚᱜ-ᱟ । ᱚᱟᱮᱨ ᱟᱮᱟ ᱠᱚ ᱟᱨᱮᱟᱜ ᱩᱨᱮᱚᱚ ᱠᱚᱣᱚ' ᱨᱚᱚᱣᱚᱚ ᱟᱨ ᱮᱚᱮᱚᱟ ᱨᱮᱟ ᱟᱯᱚ ᱚᱚ ᱟᱮᱚᱜ ᱩᱟ ।

[illegible]	ସାଧାରଣ ଗୁଣିତକ	Common Muliple

[illegible] – ଗରିଷ୍ଠ ସାଧାରଣ ଗୁଣନୀୟକ(ଗ.ସା.ଗୁ.) – GCM

[illegible] – ଲଘିଷ୍ଠ ସାଧାରଣ ଗୁଣିତକ (ଲ.ସା.ଗୁ.) – LCM

[illegible]	ଭଗ୍ନାଂଶ	Fractional
[illegible]	ଲବ	Numerator
[illegible]	ହର	Denominator
[illegible]	ସମଭଗ୍ନାଂଶ	Equal Franction
[illegible]	ଦଶମିକ	Decimal
[illegible]	ଅନୁପାତ	Ration
[illegible]	ସମାନୁପାତ	Proportion
[illegible]	ସମାନୁପାତୀ	Proportional
[illegible]	ପ୍ରାନ୍ତ ପଦ	Last Position
[illegible]	ମଧ୍ୟ ପଦ	Middle Position
[illegible] (x, ÷ [illegible])	ଐକିକ ଧାରା	Unitary
[illegible]	ଶତକଡା	Percentage
[illegible]	ଲାଭ ଓ କ୍ଷତି	Profit & Loss
[illegible]	ସରଳ ସୁଧ	Simple Interest
[illegible]	ସମୂଳ ସୁଧ	Compound Interest
[illegible]	ହାର	Rate
[illegible]	ଶତକଡା ହାର	Percentage
[illegible]	ଯଥାକ୍ରମେ	Serially
[illegible]	ଧାରା, ପ୍ରଣାଳୀ	Formula
[illegible]	ସରଳତମ	Simplest
[illegible]	ଯୁଗ୍ମ ସଂଖ୍ୟା	Even Number

[illegible]	ଅଯୁଗ୍ମ ସଂଖ୍ୟା	Odd Number
[illegible]	ଯମଜ ମୌଳିକ ସଂଖ୍ୟା	- Even redical Number
[illegible]	ପରିପୂର୍ଣ୍ଣ ସଂଖ୍ୟା	Perfect Number
[illegible]	ପୂର୍ଣ୍ଣ ସଂଖ୍ୟା	Whole Number

ᱩᱱᱩᱫᱩᱜ ᱥᱟᱠᱟᱢ

ᱚᱨᱟᱮ ᱮᱞᱮᱞ	ᱥᱟᱚᱟᱢ	ᱥᱟᱦᱴᱟ
᱑.	ᱮᱞ	᱑
᱒.	ᱞᱮᱠᱷᱟ	᱑
᱓.	'᱐' (ᱥᱩᱱ) ᱨᱮᱭᱟᱜ ᱫᱟᱨᱮ	᱓
᱔.	ᱥᱳᱝ	᱖
᱕.	ᱦᱩᱰᱤᱧ, ᱢᱟᱨᱟᱝ ᱟᱨ ᱰᱟᱨᱟᱰᱟ.ᱨᱤ	᱙
᱖.	ᱥᱮᱞᱮᱫ	᱑᱑
᱗.	ᱰᱪᱮᱜᱮᱫ	᱑᱕
᱘.	ᱜᱟᱰᱟᱝ	᱑᱙
᱙.	ᱦᱟᱴᱟᱝ	᱒᱒
᱑᱐.	ᱥᱳᱞᱦᱮ	᱒᱒
᱑᱑.	ᱜᱟᱰᱟᱰᱤᱭᱟ. ᱟᱨ ᱜᱟᱰᱟᱰᱮᱚ	᱒᱙
᱑᱒.	ᱟ.ᱚᱟ.ᱫᱧ ᱟᱨ ᱥᱮᱚᱞᱮᱫ ᱮᱞᱮᱞ	᱓᱐
᱑᱓.	ᱢᱟᱰᱚᱮ ᱜᱟᱰᱟᱰᱤᱭᱟ. ᱟᱨ ᱟ.ᱚᱟᱫᱧ ᱜᱟᱰᱟᱰᱤᱭᱟ.	᱓᱖
᱑᱔.	ᱢᱟᱨᱟᱝ ᱢᱟᱰᱚᱮ ᱜᱟᱰᱟᱰᱤᱭᱟ.	᱓᱘
᱑᱕.	ᱦᱤᱰᱤᱧ ᱢᱟᱰᱚᱮ ᱜᱟᱰᱟᱰᱮᱚ	᱔᱓
᱑᱖.	ᱨᱟᱵᱟᱝᱜᱚᱥ	᱔᱙
᱑᱗.	ᱢᱤ-ᱢᱤᱫ ᱨᱟᱵᱟᱝᱜᱚᱥ	᱕᱐
᱑᱘.	ᱜᱟᱨ ᱮᱞᱮᱞ ᱨᱮ ᱨᱟᱵᱟᱝᱜᱚᱥ	᱕᱑
᱑᱙.	ᱮᱞ ᱟᱨ ᱯᱤᱭᱤᱥ ᱵᱮᱚᱟᱮ ᱨᱮ ᱨᱟᱵᱟᱝᱜᱚᱥ	᱕᱔
᱒᱐.	ᱥᱳᱢᱟᱭ ᱨᱟᱵᱟᱝᱜᱚᱥ	᱕᱖
᱒᱑.	ᱨᱟᱵᱟᱝᱜᱚᱥ ᱨᱮ ᱦᱩᱰᱤᱧ ᱢᱟᱨᱟᱝ	᱕᱘
᱒᱒.	ᱥᱳᱢᱟᱭ ᱦᱩᱭᱩᱰ ᱠᱟᱚᱮ ᱚᱩᱞᱟ. ᱵᱟ.ᱨᱞᱟ.	᱖᱐
᱒᱓.	ᱨᱟᱵᱟᱝᱜᱚᱥ ᱨᱮᱭᱟᱜ ᱥᱮᱞᱮᱫ	᱖᱓
᱒᱔.	ᱨᱟᱵᱟᱝᱜᱚᱥ ᱨᱮᱭᱟᱜ ᱰᱪᱮᱜᱮᱫ	᱖᱓
᱒᱕.	ᱥᱟ.ᱵᱷᱩᱢ ᱨᱟᱵᱟᱝᱜᱚᱥ ᱨᱮ ᱥᱮᱞᱮᱫ ᱟᱨ ᱰᱪᱮᱜᱮᱫ	᱖᱔

᱗᱖. ᱵᱨᱯᱟᱥ ᱱᱩᱣᱟᱹᱡ ᱖᱕

᱗᱗. ᱵᱨᱯᱟᱥ ᱱᱩᱣᱟᱹᱡ ᱤᱨ ᱠᱨᱯᱨᱜ ᱖᱗

᱗᱘. ᱵᱨᱯᱟᱥ ᱱᱩᱣᱟᱹᱡ ᱤᱨ ᱞᱚᱤᱨᱵᱨᱜ ᱖᱙

᱗᱙. ᱢᱟᱹᱮᱭ ᱟᱤ ᱠᱟᱦᱢᱟᱹᱮᱭ ᱗᱐

᱘᱐. ᱤᱟᱫᱟᱥᱵᱳᱠ ᱤᱨ ᱢᱟᱹᱮᱭ ᱗᱕

᱘᱑. ᱠᱟᱦᱢᱟᱹᱮᱭ ᱘᱐

᱘᱒. ᱠᱟᱳᱪᱚᱤᱟ ᱙᱐

᱘᱓. ᱤᱟᱫᱟᱥᱵᱳᱠ, ᱢᱟᱹᱮᱭ ᱨᱩᱟᱮᱪᱚ
ᱠᱟᱳᱪᱚᱤᱟ ᱤᱨ ᱟᱹᱤᱩ ᱙᱓

᱘᱔. ᱠᱟᱳᱪᱚᱤᱟ ᱤᱨᱮᱟᱡ ᱞᱨᱞᱚᱟᱤ ᱙᱘

᱘᱕. ᱯᱟᱞᱚ ᱟᱤ ᱣᱟᱹᱮ ᱑᱐᱕

᱘᱖. ᱠᱟᱳᱪᱚᱤᱟ ᱯᱟᱞᱚ ᱣᱟᱹᱮ ᱑᱐᱗

᱘᱗. ᱠᱩᱜᱤ ᱠᱚᱯᱣᱨ ᱑᱑᱑

ᱮᱞ — ᱑,᱒,᱓,᱔,᱕,... ᱠᱚᱫᱚ ᱠᱚ ᱡᱩᱨᱩᱜ ᱠᱟᱱᱟ ᱮᱞ । ᱮᱞᱮᱞ ᱠᱚ ᱥᱚᱫ ᱯᱩᱦᱧᱟᱹᱭ ᱛᱮᱫ ᱜᱮ ᱞᱮᱠᱷᱟ ᱟᱨ ᱞᱮᱠᱷᱟ ᱥᱮᱨᱟᱜ ᱫᱷᱟᱹᱞ ᱦᱩᱛᱩᱥ ᱠᱚᱜᱮ ᱮᱞᱠᱷᱟ ᱫᱚ ।

ᱞᱮᱠᱷᱟ — ᱮᱞ ᱠᱚᱥᱮᱱᱟᱜ ᱦᱟᱜᱮ ᱟᱛᱟᱫ ᱠᱚᱜᱮ ᱞᱮᱠᱷᱟ ᱫᱚ । ᱚᱱᱟ ᱠᱚᱫᱚ ᱱᱚᱸᱠᱟ —

᱑ — ᱢᱤᱫ
᱒ — ᱵᱟᱨ
᱓ — ᱯᱮ
᱔ — ᱯᱩᱱ
᱕ — ᱢᱚᱬᱮ (ᱢᱚᱬ)
᱖ — ᱛᱩᱨᱩᱭ (ᱛᱩᱨ)
᱗ — ᱮᱭᱟᱭ (ᱭᱟᱭ)
᱘ — ᱤᱨᱟᱹᱞ (ᱨᱟᱹᱞ)
᱙ — ᱟᱨᱮ (ᱟᱨ)
᱑᱐ — ᱜᱮᱞ (ᱜᱮ)
᱑᱑ — ᱜᱮᱞ ᱢᱤᱫ (ᱜᱮᱢᱤᱫ)
᱑᱒ — ᱜᱮᱞ ᱵᱟᱨ (ᱜᱮᱵᱟᱨ)
᱑᱓ — ᱜᱮᱞ ᱯᱮ (ᱜᱮᱯᱮ)
᱑᱔ — ᱜᱮᱞ ᱯᱩᱱ (ᱜᱮᱯᱩᱱ)
᱑᱕ — ᱜᱮᱞ ᱢᱚᱬᱮ (ᱜᱮᱢᱚᱬ)
᱑᱖ — ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱜᱮᱛᱩᱨ)
᱑᱗ — ᱜᱮᱞ ᱮᱭᱟᱭ (ᱜᱮᱭᱟᱭ)
᱑᱘ — ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱜᱮᱨᱟᱹᱞ)
᱑᱙ — ᱜᱮᱞ ᱟᱨᱮ (ᱜᱮᱟᱨ)
᱒᱐ — ᱵᱟᱨ ᱜᱮᱞ (ᱵᱟᱨᱜᱮ)
᱒᱑ — ᱵᱟᱨ ᱜᱮᱞ ᱢᱤᱫ (ᱵᱟᱨᱜᱮ ᱢᱤᱫ)
᱒᱒ — ᱵᱟᱨ ᱜᱮᱞ ᱵᱟᱨ (ᱵᱟᱨᱜᱮ ᱵᱟᱨ)
᱒᱓ — ᱵᱟᱨ ᱜᱮᱞ ᱯᱮ (ᱵᱟᱨᱜᱮ ᱯᱮ)
᱒᱔ — ᱵᱟᱨ ᱜᱮᱞ ᱯᱩᱱ (ᱵᱟᱨᱜᱮ ᱯᱩᱱ)
᱒᱕ — ᱵᱟᱨ ᱜᱮᱞ ᱢᱚᱬᱮ (ᱵᱟᱨᱜᱮ ᱢᱚᱬ)
᱒᱖ — ᱵᱟᱨ ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱵᱟᱨᱜᱮ ᱛᱩᱨ)
᱒᱗ — ᱵᱟᱨ ᱜᱮᱞ ᱮᱭᱟᱭ (ᱵᱟᱨᱜᱮ ᱭᱟᱭ)
᱒᱘ — ᱵᱟᱨ ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱵᱟᱨᱜᱮ ᱨᱟᱹᱞ)
᱒᱙ — ᱵᱟᱨ ᱜᱮᱞ ᱟᱨᱮ (ᱵᱟᱨᱜᱮ ᱟᱨ)
᱓᱐ — ᱯᱮ ᱜᱮᱞ (ᱯᱮᱜᱮ)
᱓᱑ — ᱯᱮ ᱜᱮᱞ ᱢᱤᱫ (ᱯᱮᱜᱮ ᱢᱤᱫ)
᱓᱒ — ᱯᱮ ᱜᱮᱞ ᱵᱟᱨ (ᱯᱮᱜᱮ ᱵᱟᱨ)
᱓᱓ — ᱯᱮ ᱜᱮᱞ ᱯᱮ (ᱯᱮᱜᱮ ᱯᱮ)
᱓᱔ — ᱯᱮ ᱜᱮᱞ ᱯᱩᱱ (ᱯᱮᱜᱮ ᱯᱩᱱ)
᱓᱕ — ᱯᱮ ᱜᱮᱞ ᱢᱚᱬᱮ (ᱯᱮᱜᱮ ᱢᱚᱬ)
᱓᱖ — ᱯᱮ ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱯᱮᱜᱮ ᱛᱩᱨ)
᱓᱗ — ᱯᱮ ᱜᱮᱞ ᱮᱭᱟᱭ (ᱯᱮᱜᱮ ᱭᱟᱭ)

᱓᱘ – ᱯᱮ ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱯᱮᱜᱮ ᱨᱟᱹᱞ)
᱓᱙ – ᱯᱮ ᱜᱮᱞ ᱟᱨᱮ (ᱯᱮᱜᱮ ᱟᱨ)
᱔᱐ – ᱯᱩᱱ ᱜᱮᱞ (ᱯᱩᱸᱜᱮ)
᱔᱑ – ᱯᱩᱱ ᱜᱮᱞ ᱢᱤᱫ (ᱯᱩᱸᱜᱮ ᱢᱤᱫ)
᱔᱒ – ᱯᱩᱱ ᱜᱮᱞ ᱵᱟᱨ (ᱯᱩᱸᱜᱮ ᱵᱟᱨ)
᱔᱓ – ᱯᱩᱱ ᱜᱮᱞ ᱯᱮ (ᱯᱩᱸᱜᱮ ᱯᱮ)
᱔᱔ – ᱯᱩᱱ ᱜᱮᱞ ᱯᱩᱱ (ᱯᱩᱸᱜᱮ ᱯᱩᱱ)
᱔᱕ – ᱯᱩᱱ ᱜᱮᱞ ᱢᱚᱬᱮ (ᱯᱩᱸᱜᱮ ᱢᱚᱬ)
᱔᱖ – ᱯᱩᱱ ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱯᱩᱸᱜᱮ ᱛᱩᱨ)
᱔᱗ – ᱯᱩᱱ ᱜᱮᱞ ᱮᱭᱟᱭ (ᱯᱩᱸᱜᱮ ᱭᱟᱭ)
᱔᱘ – ᱯᱩᱱ ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱯᱩᱸᱜᱮ ᱨᱟᱹᱞ)
᱔᱙ – ᱯᱩᱱ ᱜᱮᱞ ᱟᱨᱮ (ᱯᱩᱸᱜᱮ ᱟᱨ)
᱕᱐ – ᱢᱚᱬᱮ ᱜᱮᱞ (ᱢᱚᱜᱮ)
᱕᱑ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱢᱤᱫ (ᱢᱚᱜᱮ ᱢᱤᱫ)
᱕᱒ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱵᱟᱨ (ᱢᱚᱜᱮ ᱵᱟᱨ)
᱕᱓ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱯᱮ (ᱢᱚᱜᱮ ᱯᱮ)
᱕᱔ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱯᱩᱱ (ᱢᱚᱜᱮ ᱯᱩᱱ)
᱕᱕ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱢᱚᱬᱮ (ᱢᱚᱜᱮ ᱢᱚᱬ)
᱕᱖ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱢᱚᱜᱮ ᱛᱩᱨ)
᱕᱗ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱮᱭᱟᱭ (ᱢᱚᱜᱮ ᱭᱟᱭ)
᱕᱘ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱢᱚᱜᱮ ᱨᱟᱹᱞ)
᱕᱙ – ᱢᱚᱬᱮ ᱜᱮᱞ ᱟᱨᱮ (ᱢᱚᱜᱮ ᱟᱨ)
᱖᱐ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ (ᱛᱩᱜᱮ)
᱖᱑ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱢᱤᱫ (ᱛᱩᱜᱮ ᱢᱤᱫ)
᱖᱒ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱵᱟᱨ (ᱛᱩᱜᱮ ᱵᱟᱨ)
᱖᱓ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱯᱮ (ᱛᱩᱜᱮ ᱯᱮ)
᱖᱔ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱯᱩᱱ (ᱛᱩᱜᱮ ᱯᱩᱱ)
᱖᱕ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱢᱚᱬᱮ (ᱛᱩᱜᱮ ᱢᱚᱬ)
᱖᱖ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱛᱩᱜᱮ ᱛᱩᱨ)
᱖᱗ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱮᱭᱟᱭ (ᱛᱩᱜᱮ ᱭᱟᱭ)
᱖᱘ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱛᱩᱜᱮ ᱨᱟᱹᱞ)
᱖᱙ – ᱛᱩᱨᱩᱭ ᱜᱮᱞ ᱟᱨᱮ (ᱛᱩᱜᱮ ᱟᱨ)
᱗᱐ – ᱮᱭᱟᱭ ᱜᱮᱞ (ᱮᱜᱮ)
᱗᱑ – ᱮᱭᱟᱭ ᱜᱮᱞ ᱢᱤᱫ (ᱮᱜᱮ ᱢᱤᱫ)
᱗᱒ – ᱮᱭᱟᱭ ᱜᱮᱞ ᱵᱟᱨ (ᱮᱜᱮ ᱵᱟᱨ)

᱗᱓ – ᱮᱮᱭᱟᱭ ᱜᱮᱞ ᱯᱮ (ᱮᱜᱮ ᱯᱮ)
᱗᱔ – ᱮᱭᱟᱭ ᱜᱮᱞ ᱯᱩᱱ (ᱮᱜᱮ ᱯᱩᱱ)
᱗᱕ – ᱮᱭᱟᱭ ᱜᱮᱞ ᱢᱚᱬᱮ (ᱮᱜᱮ ᱢᱚᱬ)
᱗᱖ – ᱮᱭᱟᱭ ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱮᱜᱮ ᱛᱩᱨ)
᱗᱗ – ᱮᱭᱟᱭ ᱜᱮᱞ ᱮᱭᱟᱭ (ᱮᱜᱮ ᱭᱟᱭ)
᱗᱘ – ᱮᱭᱟᱭ ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱮᱜᱮ ᱨᱟᱹᱞ)
᱗᱙ – ᱮᱭᱟᱭ ᱜᱮᱞ ᱟᱨᱮ (ᱮᱜᱮ ᱟᱨ)
᱘᱐ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ (ᱤᱜᱮ)
᱘᱑ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱢᱤᱫ (ᱤᱜᱮ ᱢᱤᱫ)
᱘᱒ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱵᱟᱨ (ᱤᱜᱮ ᱵᱟᱨ)
᱘᱓ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱯᱮ (ᱤᱜᱮ ᱯᱮ)
᱘᱔ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱯᱩᱱ (ᱤᱜᱮ ᱯᱩᱱ)
᱘᱕ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱢᱚᱬᱮ (ᱤᱜᱮ ᱢᱚᱬ)
᱘᱖ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱤᱜᱮ ᱛᱩᱨ)
᱘᱗ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱮᱭᱟᱭ (ᱤᱜᱮ ᱭᱟᱭ)
᱘᱘ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱤᱜᱮ ᱨᱟᱹᱞ)
᱘᱙ – ᱤᱨᱟᱹᱞ ᱜᱮᱞ ᱟᱨᱮ (ᱤᱜᱮ ᱟᱨ)
᱙᱐ – ᱟᱨᱮ ᱜᱮᱞ (ᱟᱜᱮ)
᱙᱑ – ᱟᱨᱮ ᱜᱮᱞ ᱢᱤᱫ (ᱟᱜᱮ ᱢᱤᱫ)
᱙᱒ – ᱟᱨᱮ ᱜᱮᱞ ᱵᱟᱨ (ᱟᱜᱮ ᱵᱟᱨ)
᱙᱓ – ᱟᱨᱮ ᱜᱮᱞ ᱯᱮ (ᱟᱜᱮ ᱯᱮ)
᱙᱔ – ᱟᱨᱮ ᱜᱮᱞ ᱯᱩᱱ (ᱟᱜᱮ ᱯᱩᱱ)
᱙᱕ – ᱟᱨᱮ ᱜᱮᱞ ᱢᱚᱬᱮ ᱟᱜᱮ ᱢᱚᱬ)
᱙᱖ – ᱟᱨᱮ ᱜᱮᱞ ᱛᱩᱨᱩᱭ (ᱟᱜᱮ ᱛᱩᱨ)
᱙᱗ – ᱟᱨᱮ ᱜᱮᱞ ᱮᱭᱟᱭ (ᱟᱜᱮ ᱭᱟᱭ)
᱙᱘ – ᱟᱨᱮ ᱜᱮᱞ ᱤᱨᱟᱹᱞ (ᱟᱜᱮ ᱨᱟᱹᱞ)
᱙᱙ – ᱟᱨᱮ ᱜᱮᱞ ᱟᱨᱮ (ᱟᱜᱮ ᱟᱨ)
᱑᱐᱐–ᱜᱮᱞ ᱜᱮᱞ (ᱥᱟᱭ)

'᱐' (ᱥᱩᱱ) ᱵᱮᱦᱟᱜ ᱫᱟᱲᱮ

'᱐' ᱫᱚ ᱟᱡ ᱮᱠᱞᱟ ᱵᱮᱫᱚ ᱦᱮᱫ ᱣᱚ' ᱫᱟᱲᱮ ᱜᱮ ᱵᱟᱹᱲᱩᱜ ᱚᱟᱦᱟ । ᱚᱚᱵᱮ ᱟᱨ ᱢᱤᱫᱧᱟᱪ ᱮᱞ ᱵᱮᱦᱟᱜ ᱡᱚᱡᱚᱢ ᱯᱟᱣᱧᱟ ᱵᱮ ᱡᱟᱯᱟᱜ ᱞᱮᱱ ᱠᱷᱟᱱ ᱑᱐ ᱟᱪ ᱫᱟᱲᱮ ᱣᱟᱵᱟᱦᱟᱦ ।

[illegible]

[illegible] [illegible]

[illegible]

[illegible]

[illegible] [illegible]

[illegible]

[illegible]

[illegible] [illegible]

[illegible]

[illegible]

[illegible] [illegible]

[illegible]

[illegible]

[illegible] [illegible]

[illegible]

[illegible].:– [illegible]–[illegible] [illegible]–[illegible]
[illegible]–[illegible] [illegible]–[illegible]
[illegible]–[illegible] [illegible]–[illegible]
[illegible]–[illegible] [illegible]–[illegible]
[illegible]–[illegible] [illegible]–[illegible]

[illegible]. [illegible]:–[illegible] ।

[illegible].:– [illegible] ।

[illegible]. [illegible]:–[illegible] ।

[illegible].:– [illegible]–
[illegible]

[illegible]

[illegible]. [illegible] ?
[illegible]. [illegible] ।
[illegible]
[illegible]. [illegible] ।
[illegible]
[illegible]. [illegible] ।
[illegible]
[illegible]. [illegible] ।
[illegible]
[illegible]. [illegible] ।
[illegible] ।

᱘. ᱫᱜ ᱥᱮᱱᱟ ᱢᱟᱥᱟᱟᱠ ᱮᱨ ᱤᱚ ᱳᱤᱱᱟ.ᱜ ᱟᱥ ᱳᱟᱞᱚᱢ ᱮᱨ ᱤᱚ ᱳᱤᱱᱟ.ᱜ ?

᱙. ᱜᱫ ᱟᱥ ᱫᱫ ᱳᱟᱯᱨᱟ ᱥᱤᱱ ᱮᱨ ᱵᱚ ᱚᱨ ᱵᱚᱟᱮ ।

ᱡᱚᱠ

ᱯᱟᱥᱟ'ᱱᱟᱜ ᱯᱤᱱᱤᱡ ᱜᱮ ᱵᱚᱢ–ᱞᱫᱮᱥ, ᱥᱩᱞᱤᱦ–ᱢᱟᱥᱟᱟᱠ, ᱨᱮᱵᱫᱟ–ᱯᱚᱵᱫᱟ ᱜᱩ'ᱪ ᱳᱮᱤ ᱜᱮ ᱡᱚᱠ ᱤᱚ । ᱥᱫᱚᱫ–ᱫᱟᱩᱨᱮ ᱥᱚ'ᱞᱚ ᱡᱚᱠ ᱟ । ᱚᱳ–ᱥᱟᱤᱡᱟ ᱥᱚ'ᱞᱚ ᱡᱚᱠ ᱟ । ᱤᱟᱜ ᱨᱮᱵᱟᱤᱱᱟᱜ ᱯᱮᱢᱚᱱ ᱡᱩᱱᱩᱢ ᱵᱚᱥᱚ' ᱞᱚ ᱡᱚᱠ ᱟ । ᱮᱨ ᱵᱚ ᱥᱮᱱᱟᱜ ᱥᱚ' ᱡᱚᱠ ᱢᱮᱱᱟᱜ-ᱟ । ᱳᱚᱞᱮ ᱯᱚᱳᱚ ᱨᱟ.ᱜᱤᱱ ᱳᱮᱜᱮ ᱞᱫᱮᱜᱟᱥ ᱞᱫᱮᱜᱟᱥ ᱡᱚᱜ-ᱡᱚᱠ ᱟᱜ ᱢᱮᱱᱟᱜ-ᱟ ।

ᱥᱫᱚᱫ ᱫᱟᱩᱨᱮ ᱟᱥᱞᱟᱠ ᱵᱩᱪᱫᱟ.ᱴ ᱯᱤᱱᱤᱡ ᱵᱚ ᱡᱚᱠ ᱨᱟ.ᱜᱤᱤ ᱳᱮ ᱛᱟ.ᱞᱨᱟ., ᱳᱩᱨᱟ., ᱵᱚ ᱢᱮᱱᱟᱜ-ᱟ । ᱱᱚᱤᱟ ᱤᱚ ᱥᱟᱢᱟᱨ ᱡᱚᱠ । ᱥᱟᱢᱟᱨ ᱡᱚᱠ ᱛᱟ.ᱞᱨᱟ. ᱳᱮᱤᱚ –

ᱢᱤᱤ ᱛᱟ.ᱞᱨᱟ.	=	ᱢᱤᱤ ᱵᱟᱪᱫᱟ (ᱢᱤᱤ ᱵᱤᱨᱚ ᱜᱥᱟᱢ ᱨᱮᱵᱟ)
ᱢᱤᱤᱛᱟ.ᱞᱨᱟ.	=	ᱛᱩᱱ ᱡᱮᱥᱥᱟ (᱖ ᱑/᱖ ᱵᱤᱨᱚ)
ᱢᱤᱤ ᱛᱟ.ᱞᱨᱟ.	=	ᱞᱟᱥ ᱵᱚᱴᱟ (᱒ ᱑/᱒ᱵᱤᱨᱚ)
ᱢᱤᱤ ᱞᱤᱡᱟ.	=	᱒᱐ ᱛᱟ.ᱞᱨᱟ. (᱒᱐ ᱵᱤᱨᱚ)
ᱢᱤᱤ ᱢᱩᱴᱤ	=	᱖᱐ ᱛᱟ.ᱞᱨᱟ. (᱖᱐ ᱵᱤᱨᱚ)
ᱢᱤᱤ ᱜᱩᱥᱴᱤ	=	᱑᱐ ᱛᱟ.ᱞᱨᱟ. (᱑᱐ ᱵᱤᱨᱚ)
ᱢᱤᱤ ᱛᱩᱥᱪᱤ	=	᱑᱐ ᱢᱩᱴᱤ
ᱢᱤᱤ ᱞᱟ:ᱤᱤ	=	᱑᱐ ᱢᱩᱴᱤ

ᱵᱤᱨᱚ ᱜᱥᱟᱢ ᱳᱮ –

᱑᱐ ᱢᱤᱨᱤ ᱜᱥᱟᱢ	=	᱑ ᱡᱮᱱᱪᱤ ᱜᱥᱟᱢ
᱑᱐ ᱡᱮᱱᱪᱤ ᱜᱥᱟᱢ	=	᱑ ᱞᱮᱡᱤ ᱜᱥᱟᱢ
᱑᱐ ᱞᱮᱡᱤ ᱜᱥᱟᱢ	=	᱑ ᱜᱥᱟᱢ
᱑᱐ ᱜᱥᱟᱢ	=	᱑ ᱞᱮᱵᱟ ᱜᱥᱟᱢ
᱑᱐ ᱞᱮᱵᱟ ᱜᱥᱟᱢ	=	᱑ ᱥᱮᱵᱪᱚ ᱜᱥᱟᱢ

[illegible] = [illegible]
[illegible] = [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

ᱥᱟᱹᱞᱟᱠᱟᱹ

᱑. ᱠᱩ:- ᱢᱤᱫ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱦᱩᱰᱤᱧ ᱮᱞ ᱫᱚ ᱚᱠᱚᱭ ?

ᱞᱟᱹ:- ᱢᱤᱫ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱦᱩᱰᱤᱧ ᱮᱞ ᱫᱚ ᱑ ।

᱒. ᱠᱩ:- ᱢᱤᱫ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞ ᱫᱚ ᱚᱠᱚᱭ ?

ᱞᱟᱹ:- ᱢᱤᱫ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞ ᱫᱚ ᱙ ।

᱓. ᱠᱩ:- ᱮᱞ ᱠᱚ ᱵᱮᱨᱮᱫᱟᱜ ᱨᱚᱲ ᱚᱞ ᱢᱮ -
᱒᱓, ᱑᱙, ᱑᱘, ᱒᱑᱐, ᱑᱙᱒ ।

ᱞᱟᱹ:- ᱑᱓ - ᱑ ᱜᱮᱞ ᱓ ᱢᱤᱫ
᱑᱙ - ᱑ ᱜᱮᱞ ᱙ ᱢᱤᱫ
᱑᱘ - ᱑ ᱜᱮᱞ ᱘ ᱢᱤᱫ
᱒᱑᱐ - ᱒ ᱥᱟᱭ ᱙ ᱜᱮᱞ ᱒ ᱢᱤᱫ
᱑᱙᱒ - ᱑ ᱥᱟᱭ ᱙ ᱜᱮᱞ ᱒ ᱢᱤᱫ

ᱦᱩᱰᱤᱧ, ᱢᱟᱨᱟᱝ ᱟᱨ ᱥᱟᱢᱟ-ᱥᱟᱹᱢᱟ

ᱦᱩᱰᱤᱧ, ᱢᱟᱨᱟᱝ ᱟᱨ ᱥᱟᱢᱟ-ᱥᱟᱹᱢᱟ ᱞᱮᱠᱟ ᱮᱞ ᱠᱚ ᱵᱮᱵᱷᱟᱨᱟᱹᱭ ᱞᱟᱹᱜᱤᱫ, ᱚᱠᱚᱭ ᱮᱞ ᱚᱠᱚᱭ ᱮᱞ ᱠᱷᱚᱱ ᱦᱩᱰᱤᱧᱟ, ᱵᱮ ᱢᱟᱨᱟᱝᱟ, ᱵᱮ ᱥᱟᱢᱟ-ᱥᱟᱹᱢᱟᱜ ᱟᱨᱚ ᱞᱟᱹᱜᱤᱫ ᱛᱮ ᱮᱞᱠᱷᱟ ᱯᱚᱱᱚᱛᱟᱨᱮ ᱵᱮᱵᱷᱟᱨᱟᱹ ᱥᱟ ᱞᱟᱹᱜᱤᱫ ᱚᱠᱟ ᱾ ᱟᱨᱚ ᱵᱮᱵᱷᱟᱨᱟᱹ ᱠᱚᱨᱟ - < , > ᱟᱨ = ।

[illegible]

[illegible]. [illegible]:– [illegible] (< > =) [illegible] ?

(a) [illegible]......[illegible] (b) [illegible]......[illegible] (c) [illegible]......[illegible]

(d) [illegible]......[illegible] (e) [illegible]......[illegible] (f) [illegible]......[illegible]

(g) [illegible]......[illegible] (h) [illegible]......[illegible] (i) [illegible]......[illegible]

[illegible]:– (a) [illegible] > [illegible] (b) [illegible] < [illegible] (c) [illegible] > [illegible]

(d) [illegible] < [illegible] (e) [illegible] > [illegible] (f) [illegible] = [illegible]

(g) [illegible] > [illegible] (h) [illegible] = [illegible] (i) [illegible] < [illegible] ।

[illegible]

[illegible]. [illegible] ?

[illegible]. [illegible] ?

[illegible]. [illegible] ?

[illegible]. [illegible] ।

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible] ।

[illegible]. [illegible] < , > , = [illegible] ।

(a) [illegible]......[illegible] (b) [illegible]......[illegible] (c) [illegible]......[illegible]

(d) [illegible]......[illegible] (e) [illegible]......[illegible] (f) [illegible]......[illegible]

(g) [illegible]......[illegible] (h) [illegible]......[illegible] (i) [illegible]......[illegible]

ᱥᱮᱞᱮᱫ (+)

ᱵᱟᱨᱮᱭᱟ ᱡᱩᱲᱩ ᱟᱨᱵᱟᱝ ᱠᱷᱟᱱ ᱯᱮᱭᱟ ᱡᱩᱲᱩ ᱟᱨᱵᱟᱝ ᱠᱷᱟᱱ ᱥᱟᱸᱜᱮ ᱡᱩᱲᱩ ᱠᱚ ᱢᱤᱫᱴᱷᱮᱱ ᱡᱩᱲᱩ ᱢᱤᱫ ᱜᱮ ᱥᱮᱞᱮᱫ ᱫᱚ । ᱥᱮᱞᱮᱫ ᱪᱤᱱᱦᱟᱹ ᱫᱚ '+' ।

ᱫᱟᱹᱭᱠᱟᱹ

᱑. ᱑ + ᱐ = ᱑   ᱙ + ᱔ = ᱑᱓

᱑ + ᱑ = ᱒   ᱒ + ᱒ = ᱔

᱑ + ᱒ = ᱓   ᱑᱐ + ᱑᱒ = ᱒᱒

ᱟᱨᱵᱟᱝ ᱠᱷᱟᱱ ᱱᱚᱸᱠᱟ ᱦᱚᱵᱚ ᱚᱞ ᱠᱮᱭᱟ –

᱑	᱑	᱑
+ ᱐	+ ᱑	+ ᱒
᱑	᱒	᱓

᱙	᱒	᱑᱐
+ ᱔	+ ᱒	+ ᱑᱒
᱑᱓	᱔	᱒᱒

᱒. ᱠᱩ:– ᱮᱞ ᱠᱚ ᱥᱚᱝ ᱤᱫᱤ ᱠᱟᱛᱮ ᱯᱟᱨᱦᱟᱲ ᱠᱚᱢᱟ ।
᱒᱐᱖᱘, ᱑᱒, ᱖᱒᱓, ᱑᱓᱘᱖᱒, ᱔᱙᱖᱒ ।

ᱞᱟ.:– ᱒᱐᱖᱘ = ᱒᱐᱐᱐ + ᱐᱐᱐ + ᱖᱐ + ᱘

᱑᱒ = ᱑᱐ + ᱒

᱖᱒᱓ = ᱖᱐᱐ + ᱒᱐ + ᱓

᱑᱓᱘᱖᱒ = ᱑᱐᱐᱐᱐ + ᱓᱐᱐᱐ + ᱘᱐᱐ + ᱖᱐ + ᱒

᱔᱙᱖᱒ = ᱔᱐᱐᱐ + ᱙᱐᱐ + ᱖᱐ +᱒

᱓. ᱠᱩ:– ᱠᱟᱹᱨᱩ ᱢᱤᱫ ᱜᱚᱴ ᱨᱮ ᱖ ᱜᱚᱴᱟᱝ ᱢᱮᱨᱚᱢ ᱟᱨ ᱘ ᱜᱚᱴᱟᱝ ᱵᱷᱤᱵᱤ ᱵᱩᱨᱩ ᱥᱮᱭ ᱜᱩᱲᱤ ᱤᱭᱤ ᱠᱚᱚᱟᱲ । ᱮᱱᱠᱷᱟᱱ ᱠᱟᱹᱨᱩ ᱫᱚ ᱡᱚᱛᱚ ᱛᱮ ᱛᱤᱱᱟᱹᱜ ᱜᱩᱲᱤ ᱴᱟᱹᱵᱤ ᱛᱮ ᱤᱭᱤ ᱥᱟᱴᱮᱤ ᱮᱭ ᱠᱚᱚᱟ ?

ᱮᱛ.:- ᱠᱛ.ᱟᱩ ᱥᱟᱹᱜ ᱵᱚᱱ ᱟᱨ ᱖ ᱵᱚᱱᱛᱮ ᱥᱨᱟᱠᱥ

+ ᱛᱟ ᱙ ᱵᱚᱱᱛᱮ ᱞᱚᱜᱟᱹᱜᱟᱹ

ᱡᱚᱛᱚ ᱟᱨ ᱓᱖ ᱵᱚᱱᱛᱮ

∴(ᱨᱮᱠᱷᱟᱛᱮ) ᱠᱛ.ᱟᱩ ᱥᱨᱟᱠᱥ ᱛᱟ ᱞᱚᱜᱟᱹᱜᱟᱹ ᱵᱩᱫᱟᱹ ᱱᱛ:ᱜᱟᱹ ᱚᱨ ᱓᱖ ᱵᱚᱱᱛᱮ ᱨ ᱠᱨᱱᱨᱟ ᱠᱚᱢᱛ ।

᱖. ᱠᱩ:- ᱥᱟᱹᱜ ᱞᱚᱠ ᱵᱮ.ᱜᱟᱹ ᱞᱛ.ᱟᱫᱛᱮᱛ ᱠᱚᱢᱮ ᱟᱛᱞᱟᱢᱥᱫᱩᱟ ᱡᱛᱮᱛ᱖ ᱠᱛᱮᱛ । ᱞᱛ.ᱟᱫᱛᱮᱛ ᱟᱨ ᱘᱖ ᱣᱚᱫ ᱠᱚ ᱮᱨᱡ ᱨᱮᱛ । ᱞᱛ:ᱵᱡᱟᱹ ᱟᱨ ᱖ ᱣᱚᱫ ᱠᱚ ᱮᱨᱡ ᱨᱮᱛ ᱛᱟ ᱞᱟᱹᱠᱩᱞ ᱟᱨ ᱙ ᱣᱚᱫ ᱠᱚ ᱮᱨᱡ ᱨᱮᱛ ᱡᱚᱛᱚ ᱵᱨ ᱟᱛᱞᱟᱢᱥ ᱫᱩᱟ ᱠᱚ ᱡᱛᱮᱛ᱖-ᱛ । ᱨᱮᱠᱷᱟᱛᱮ ᱚᱨᱮᱛ.᱖ ᱣᱚᱫ ᱟᱛᱞᱟᱢᱥ ᱫᱩᱟ ᱠᱚ ᱠᱨᱱᱨᱟ ᱨᱮᱛ ?

ᱮᱛ.:- ᱥᱟᱹᱜ ᱞᱚᱠ ᱞᱛ.ᱟᱫᱛᱮᱛ ᱠᱚᱢᱮ ᱟᱛᱞᱟᱢᱥᱫᱩᱟ ᱡᱛᱮᱛ᱖ ᱠᱛᱮᱛ । ᱞᱛ.ᱟᱫᱛᱮᱛ ᱟᱨᱠᱚ ᱮᱨᱡ ᱨᱮᱛ ᱘᱖ ᱣᱚᱫ

+ ᱞᱛ.ᱵᱡᱟᱹ ᱟᱨᱠᱚ ᱮᱨᱡ ᱨᱮᱛ ᱖ ᱣᱚᱫ

+ ᱞᱟᱹᱠᱩᱞ ᱟᱨᱠᱚ ᱮᱨᱡ ᱨᱮᱛ ᱙ ᱣᱚᱫ

ᱟᱛᱞᱟᱢᱥᱫᱩᱟ ᱚᱨᱠᱚ ᱠᱨᱱᱨᱟ ᱨᱮᱛ ᱓᱙ ᱣᱚᱫ

∴ ᱞᱛ.ᱟᱫᱛᱮᱛ ᱠᱚᱢᱮ ᱟᱛᱞᱟᱢᱥᱫᱩᱟ ᱡᱛᱮᱛ᱖ ᱞᱚᱠ ᱚᱨ ᱡᱚᱛᱚ ᱟᱨ ᱓᱙ ᱣᱚᱫ ᱟᱛᱞᱟᱢᱥᱫᱩᱟ ᱠᱚ ᱠᱨᱱᱨᱟ ᱨᱮᱛ ।

᱖. ᱠᱩ:- ᱞᱛᱟ ᱨᱮ ᱡᱚᱛᱚ ᱠᱚᱢᱮ ᱥᱛᱟᱛᱮ ᱨᱮ ᱠᱛᱮᱛ᱖ ᱥᱟᱹᱜ ᱨᱮ ᱚᱨ ᱡᱚᱛᱚ ᱠᱚᱢᱮ ᱥᱛᱟᱛᱮ ᱨᱮ ᱥᱨᱠᱛ ᱮᱨᱠᱚᱛᱮ ᱚᱨᱮᱛ.ᱵᱩᱞᱩ᱖-ᱛ ?

ᱮᱛ.:- ᱞᱛᱟ ᱨᱮ ᱚᱨ ᱡᱚᱛᱚ ᱠᱚᱢᱮ ᱥᱛᱟᱛᱮ ᱨᱮ ᱮᱫ - ᱖᱖

+ ᱥᱟᱹᱜ ᱨᱮ ᱚᱨ ᱡᱚᱛᱚ ᱠᱚᱢᱮ ᱥᱛᱟᱛᱮ ᱨᱮ ᱮᱫ - ᱖

ᱡᱚᱢᱟ - ᱓᱐᱙

ᱛᱟᱞᱛᱮ ᱠᱚᱢᱮ

ᱞᱛᱟ ᱨᱮ ᱚᱨ ᱡᱚᱛᱚ ᱠᱚᱢᱮ ᱥᱛᱟᱛᱮ ᱨᱮ = ᱖᱖

ᱥᱟᱹᱜ ᱨᱮ ᱚᱨ ᱡᱚᱱᱟ ᱠᱚᱢᱮ ᱥᱛᱟᱛᱮ ᱨᱮ = ᱖

ᱥᱨᱠᱛ ᱮᱨᱠᱚᱛᱮ = ᱖᱖ + ᱖ = ᱓᱐᱙

∴ [illegible]

[illegible]

[illegible]. [illegible] ।

[illegible] + [illegible] =........ [illegible] + [illegible] =........ [illegible] + [illegible] =........

[illegible] + [illegible] =........ [illegible] + [illegible] =........ [illegible] + [illegible] =........

[illegible] + [illegible] =........ [illegible] + [illegible] =........ [illegible] + [illegible] =........

[illegible]. (column addition: ten problems in the form [illegible] + [illegible])

[illegible]. [illegible] ।

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible]. [illegible] ?

[illegible]. [illegible] ?

[illegible]. [illegible] ?

᱗. ᱥᱟᱞᱜᱮ ᱦᱟᱛᱚᱢ ᱫᱤᱱᱟᱹᱢ ᱕ ᱯᱟᱹᱭᱞᱟᱹ ᱪᱟᱣᱞᱮᱭ ᱫᱟᱠᱟᱭᱟ । ᱢᱤᱫ ᱫᱤᱱ ᱦᱤᱞᱚᱜ ᱯᱮᱨᱟ ᱠᱚ ᱦᱮᱡ ᱮᱱᱛᱮ ᱤᱱᱟᱹ ᱦᱤᱞᱚᱜ ᱫᱚ ᱗ ᱯᱟᱹᱭᱞᱟᱹ ᱪᱟᱣᱞᱮ ᱵᱤᱥᱛᱤ ᱠᱷᱟᱹᱡᱚ ᱠᱮᱫ-ᱟᱭ । ᱮᱱᱠᱷᱟᱱ ᱤᱱᱟᱹ ᱦᱤᱞᱚᱜ ᱥᱟᱞᱜᱮ ᱦᱟᱛᱚᱢ ᱛᱤᱱᱟᱹᱜ ᱪᱟᱣᱞᱮ ᱫᱟᱠᱟ ᱠᱮᱫ-ᱟᱭ ?

᱘. ᱢᱤᱫ ᱵᱚᱥ ᱵᱟᱹᱨᱯᱟᱫᱟ ᱠᱷᱚᱱ ᱵᱷᱩᱵᱚᱱᱮᱥᱣᱚᱨ ᱪᱟᱞᱟᱜ ᱠᱟᱱᱟ । ᱵᱟᱹᱨᱯᱟᱫᱟ ᱨᱮᱫᱚ ᱗᱐ ᱦᱚᱲ ᱠᱚ ᱫᱮᱡ ᱮᱱᱟ, ᱵᱟᱞᱮᱥᱣᱚᱨ ᱨᱮ ᱘ ᱦᱚᱲ, ᱵᱷᱚᱫᱨᱚᱠ ᱨᱮ ᱙ ᱦᱚᱲ, ᱠᱚᱴᱚᱠ ᱨᱮ ᱕ ᱦᱚᱲ ᱠᱚ ᱫᱮᱡ ᱮᱱᱟ ᱟᱨ ᱡᱚᱛᱚ ᱵᱷᱩᱵᱚᱱᱮᱥᱣᱚᱨ ᱠᱚ ᱥᱮᱴᱮᱨ ᱮᱱᱟ । ᱮᱱᱠᱷᱟᱱ ᱚᱱᱟ ᱵᱚᱥ ᱛᱮ ᱛᱤᱱᱟᱹᱜ ᱦᱚᱲ ᱠᱚ ᱯᱟᱞᱟᱣ ᱥᱮᱴᱮᱨ ᱮᱱᱟ ?

᱙. ᱯᱩᱱ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱦᱩᱰᱤᱧ ᱮᱞ ᱠᱷᱚᱱ ᱵᱟᱨ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞ ᱢᱮᱥᱟ ᱞᱮᱠᱷᱟᱱ ᱛᱤᱱᱟᱹᱜ ?

᱑᱐. ᱵᱟᱨ ᱮᱞᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞ, ᱢᱤᱫ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞ ᱟᱨ ᱯᱮ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱦᱩᱰᱤᱧ ᱮᱞ ᱢᱮᱥᱟ ᱞᱮᱠᱚ ᱠᱷᱟᱱ ᱛᱤᱱᱟᱹᱜ ᱦᱩᱭᱩᱜ-ᱟ ?

ᱨᱷᱤᱮᱜᱮᱛ (−)

ᱩᱛᱫᱱᱟᱜ ᱢᱡᱟᱡ ᱠᱥᱟᱮ ᱡᱜᱥᱟ.ᱣ ᱟ.ᱫᱥᱛ ᱟᱤᱨᱟᱜ ᱠᱥᱟᱮ ᱟ.ᱫᱥᱛ ᱜᱮ ᱨᱷᱤᱮᱜᱮᱛ ᱫᱟ ᱨᱟ ᱩᱮᱚᱟᱜ ᱠᱟᱮᱟ । ᱨᱷᱤᱮᱜᱮᱛ ᱤᱮᱦᱟᱜ ᱵᱛᱮᱣᱟ. ᱫᱟ "−" ।

ᱫᱟ.ᱦᱠᱟ.

᱑. ᱑᱖ − ᱘ = ᱘　　᱔᱒ − ᱙ = ᱓᱓　　᱙᱘ − ᱑᱒ = ᱘᱖
᱑᱖ − ᱑᱐ = ᱖　　᱑᱐᱘ − ᱓᱙ = ᱖᱙　　᱘᱙ − ᱘ = ᱘᱑

ᱟᱤᱨᱟᱜ ᱠᱥᱟᱮ

᱑᱖	᱔᱒	᱙᱘	᱑᱖	᱑᱐᱘	᱘᱙
− ᱘	− ᱙	− ᱑᱒	− ᱑᱐	− ᱓᱙	− ᱘
᱘	᱓᱓	᱘᱖	᱖	᱖᱙	᱘᱑

᱒. ᱠᱡ:− ᱩᱟᱦᱮᱟ ᱱᱥᱮᱮ ᱖ ᱜᱟᱱᱟᱜ ᱵᱟᱠᱯᱮᱱ ᱚᱟᱣᱮ· ᱠᱟᱮᱟ । ᱟ·ᱞᱮ ᱠᱥᱟᱮ ᱡᱮᱛ ᱫᱟ ᱒ ᱦᱟ ᱵᱟᱠᱯᱮᱱ ᱫᱟᱦ ᱢᱟᱩ ᱠᱮᱜ-ᱟ । ᱮᱮᱠᱥᱟᱮ ᱟᱢ ᱱᱥᱮᱮ ᱚᱛᱮᱟ.ᱜ ᱵᱟᱠᱯᱮᱱ ᱨᱟᱤᱮᱢ ᱮᱮᱟ ?

ᱯᱟ.:− ᱩᱟᱦᱮᱟ ᱱᱥᱮᱮ ᱵᱟᱠᱯᱮᱱ ᱚᱟᱣᱮ· ᱠᱟᱮᱟ ᱖ ᱜᱟᱱᱟᱜ
− ᱟ·ᱞᱮ ᱠᱥᱟᱮᱮ ᱢᱟᱩ ᱠᱮᱜ-ᱟ　　᱒ ᱜᱟᱱᱟᱜ

ᱮᱮᱠᱥᱟᱮ ᱟᱢ ᱱᱥᱮᱮ ᱨᱟᱤᱮᱢ ᱮᱮᱟ = ᱔ ᱜᱟᱱᱟᱜ

ᱟᱤᱨᱟᱜ ᱠᱥᱟᱮ

ᱩᱟᱦᱮᱟ ᱱᱥᱮᱮ ᱖ ᱜᱟᱱᱟᱜ ᱵᱟᱠᱯᱮᱱ ᱚᱟᱣᱮ· ᱠᱟᱮᱟ ।
ᱟ·ᱞᱮ ᱠᱥᱟᱮ ᱒ ᱦᱟ ᱵᱟᱠᱯᱮᱱ ᱫᱟᱦ ᱢᱟᱩ ᱠᱮᱜ-ᱟ ।
ᱮᱮᱠᱥᱟᱮ ᱟᱢ ᱱᱥᱮᱮ ᱨᱟᱤᱮᱢ ᱟᱱᱠᱟᱮᱟ = ᱖ − ᱒ = ᱔ ᱦᱟ.
∴ ᱩᱟᱦᱮᱟ ᱱᱥᱮᱮ ᱔ ᱜᱟᱱᱟᱜ ᱵᱟᱠᱯᱮᱱ ᱨᱟᱤᱮᱢ ᱮᱮᱟ ।

᱓. ᱠᱩ:- ᱥᱩᱜᱰᱚᱟ. ᱴᱷᱮᱱ ᱗᱐ ᱴᱟᱠᱟ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ । ᱵᱷᱩᱠᱛᱩ ᱴᱷᱮᱱ ᱥᱩᱜᱰᱚᱟ. ᱠᱷᱚᱱ ᱒᱐ ᱴᱟᱠᱟ ᱠᱚᱢ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ । ᱮᱱᱠᱷᱟᱱ ᱵᱷᱩᱠᱛᱩ ᱴᱷᱮᱱ ᱛᱤᱱᱟᱹᱜ ᱴᱟᱠᱟ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ ?

ᱞᱟᱹ:- ᱥᱩᱜᱰᱚᱟ. ᱴᱷᱮᱱ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ ᱗᱐ ᱴᱟᱠᱟ
− ᱵᱷᱩᱠᱛᱩ ᱴᱷᱮᱱ ᱠᱚᱢ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ ᱒᱐ ᱴᱟᱠᱟ
ᱵᱷᱩᱠᱛᱩ ᱴᱷᱮᱱ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ ᱕᱐ ᱴᱟᱠᱟ

ᱟᱨᱵᱟᱝ ᱠᱷᱟᱱ

ᱥᱩᱜᱰᱚᱟ. ᱴᱷᱮᱱ ᱗᱐ ᱴᱟᱠᱟ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ । ᱵᱷᱩᱠᱛᱩ ᱴᱷᱮᱱ ᱥᱩᱜᱰᱚᱟ. ᱠᱷᱚᱱ ᱒᱐ ᱴᱟᱠᱟ ᱠᱚᱢ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ । ᱮᱱᱠᱷᱟᱱ ᱵᱷᱩᱠᱛᱩ ᱴᱷᱮᱱ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ = ᱗᱐ − ᱒᱐
= ᱕᱐ ᱴᱟᱠᱟ ।

∴ ᱵᱷᱩᱠᱛᱩ ᱴᱷᱮᱱ ᱕᱐ ᱴᱟᱠᱟ ᱛᱟᱦᱮᱸ ᱠᱟᱱᱟ ।

᱔. ᱠᱩ:- ᱘᱕ ᱨᱮ ᱛᱤᱱᱟᱹᱜ ᱥᱮᱞᱮᱫ ᱞᱮᱠᱷᱟᱱ ᱑᱐᱐ ᱦᱩᱭᱩᱜ-ᱟ ?

ᱞᱟᱹ:- ᱑᱐᱐ − ᱘᱕ = ᱑᱕
∴ ᱘᱕ ᱨᱮ ᱑᱕ ᱥᱮᱞᱮᱫ ᱞᱮᱠᱷᱟᱱ ᱑᱐᱐ ᱦᱩᱭᱩᱜ-ᱟ ।

᱕. ᱠᱩ:- ᱗᱗ ᱠᱷᱚᱱ ᱛᱤᱱᱟᱹᱜ ᱵᱷᱮᱜᱮᱫ ᱞᱮᱠᱷᱟᱱ ᱖᱐ ᱦᱩᱭᱩᱜ-ᱟ ?

ᱞᱟᱹ:- ᱗᱗ − ᱖᱐ = ᱑᱗
∴ ᱗᱗ ᱠᱷᱚᱱ ᱑᱗ ᱵᱷᱮᱜᱮᱫ ᱞᱮᱠᱷᱟᱱ ᱖᱐ ᱦᱩᱭᱩᱜ-ᱟ ।

᱖. ᱠᱩ:- ᱵᱟᱨ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞ ᱠᱷᱚᱱ ᱢᱤᱫ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞ ᱵᱷᱮᱜᱮᱫ ᱞᱮᱠᱷᱟᱱ ᱚᱨᱡᱚ ᱛᱤᱱᱟᱹᱜ ᱧᱟᱢᱚᱜ-ᱟ ।

ᱞᱟᱹ:- ᱵᱟᱨ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞᱫᱚ = ᱙᱙ ।
ᱟᱨ ᱢᱤᱫ ᱮᱞ ᱛᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱮᱞ ᱫᱚ = ᱙ ।
ᱵᱷᱮᱜᱮᱫ ᱚᱨᱡᱚ = ᱙᱙ − ᱙ = ᱙᱐ ।
∴ ᱵᱷᱮᱜᱮᱫ ᱚᱨᱡᱚ ᱫᱚ ᱙᱐ ᱦᱩᱭᱩᱜ-ᱟ ।

᱒. ᱟᱢ ᱵᱟᱵᱟ ᱑᱐᱐ ᱴᱟᱠᱟ ᱦᱟᱵ ᱠᱟᱛᱮ ᱵᱟᱡᱟᱨᱮ ᱪᱟᱥᱟᱣ ᱥᱮᱱᱟ । ᱫᱽᱩᱮ ᱟᱢ ᱥᱟᱹᱜᱤᱱ ᱢᱤᱫ ᱱᱫᱱᱫᱥ ᱓ ᱴᱟᱠᱟ ᱛᱮ, ᱵᱫᱠᱫᱢ ᱥᱟᱹᱜᱤᱫ ᱥᱟᱪᱫᱟ ᱕ ᱴᱟᱠᱟ ᱛᱮ, ᱢᱤᱦᱫᱟᱢ ᱥᱟᱹᱜᱤᱫ ᱡᱫᱛᱫᱵ ᱒᱐ ᱴᱟᱠᱟᱛᱮ ᱟᱫ ᱟᱢ ᱥᱟᱹᱜᱤᱫ ᱢᱤᱫ ᱗᱐ ᱴᱟᱠᱟ ᱛᱮᱞ ᱠᱤᱫᱤᱣ ᱠᱟᱛᱮ ᱩᱮᱡ ᱮᱱᱟᱞ । ᱮᱱᱠᱫᱟᱱ ᱟᱢ ᱵᱟᱵᱟ ᱛᱤᱱᱟᱹᱜ ᱴᱟᱠᱟᱞ ᱦᱟᱫᱮᱡ ᱟᱹᱜᱯ ᱠᱮᱜ-ᱟ ?

ᱥᱟ.:-ᱟᱢ ᱵᱟᱵᱟ ᱑᱐᱐ ᱴᱟᱠᱟ ᱦᱟᱵ ᱠᱟᱛᱮ ᱵᱟᱡᱟᱨᱮ ᱪᱟᱥᱟᱣ ᱥᱮᱱᱟ ।

ᱫᱽᱩᱮ ᱠᱤᱫᱤᱣ ᱠᱮᱜ-ᱟᱞ = ᱱᱫᱱᱫᱥ ᱓ ᱴᱟᱠᱟ
+ ᱥᱟᱪᱫᱟ ᱕ ᱴᱟᱠᱟ
+ ᱡᱫᱛᱫᱵ ᱒᱐ ᱴᱟᱠᱟ
+ ᱛᱫᱜᱥᱤ ᱗᱐ ᱴᱟᱠᱟ

ᱡᱫᱛᱫ ᱛᱮ ᱠᱫᱫᱫᱫᱪ ᱠᱮᱜ-ᱟᱞ = ᱙᱘ ᱴᱟᱠᱟ
ᱟᱡ ᱴᱫᱮᱱ ᱦᱟᱫᱮᱡ ᱮᱱᱟ = ᱑᱐᱐ − ᱙᱘ = ᱒ ᱴᱟᱠᱟ ।

∴ ᱟᱢ ᱵᱟᱵᱟ ᱵᱟᱡᱟᱫ ᱠᱫᱫᱱ ᱦᱟ.ᱣᱥᱟ. ᱛᱟᱞᱫᱢ ᱒ ᱴᱟᱠᱟ ᱦᱟᱫᱮᱡ ᱟ.ᱜᱯ ᱠᱮᱜ-ᱟᱞ ।

ᱫᱮᱣᱟ ᱠᱯᱠᱥᱤ

᱑. ᱵᱫᱮᱜᱮᱥ ᱡᱮ ।

᱒᱓ − ᱕ =........ ᱖᱓ − ᱑᱐ =........ ᱙᱕ − ᱕᱓ =........

᱑᱐᱗ − ᱕᱗ =........ ᱑᱐᱕ − ᱓᱓ =........ ᱕᱑᱙ − ᱗᱘ =........

᱙᱗᱕᱓ − ᱑᱗ =........ ᱙᱓ − ᱕᱗ =........ ᱙᱓ − ᱗᱓ =........

᱒.

᱕	᱕᱒	᱖᱓	᱒᱕	᱕᱓
− ᱒	− ᱗᱒	− ᱑᱒	− ᱗᱓	− ᱙᱕

᱑᱓᱗	᱑᱐᱒	᱒᱕᱒	᱑᱒᱓᱖	᱒᱗᱗
− ᱒᱘	− ᱕᱗	− ᱙᱕	− ᱒᱐᱖	− ᱙

[illegible] ?

[illegible] ?

[illegible] ?

[illegible] ?

[illegible] ।

[illegible] (x)

[illegible] "x" । [illegible] –

[illegible] – [illegible] + [illegible] + [illegible] + [illegible] = [illegible]

[illegible] –

[illegible] x [illegible] = [illegible]

[illegible] –

[illegible]

[illegible] –

+ x + = +   – x + = –

+ x – = –   – x – = +

[illegible] [illegible] x [illegible] = [illegible]

[illegible] –

[illegible]
x [illegible]
[illegible]

[illegible].

[illegible]. [illegible] [illegible] ।

[illegible] × [illegible] = [illegible]

[illegible]. [illegible] × [illegible] = [illegible]

[illegible]. [illegible]:– [illegible] [illegible] । [illegible] ?

[illegible]:– [illegible]

[illegible] = [illegible] x [illegible]

= [illegible] x [illegible]

= [illegible]

[illegible] – [illegible] = [illegible]

x [illegible] = [illegible]

[illegible] = [illegible]

∴ [illegible] ।

[illegible]. [illegible]:– [illegible] । [illegible] ?

[illegible]:– [illegible] ।

[illegible]

= [illegible] x [illegible]

= [illegible]

∴ [illegible] ।

[illegible]. [illegible]:– [illegible] । [illegible] ?

ᱞᱟ.:- ᱢᱤᱫᱴᱟᱝ ᱚᱞ ᱥᱮᱢᱮᱫ ᱵᱚᱛᱚᱞ ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱑᱐ ᱴᱟᱠᱟ ।

᱕ ᱜᱚᱴᱟᱝ ᱚᱞ ᱥᱮᱢᱮᱫ. ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ = ᱑᱐ x ᱕
= ᱕᱐ ᱴᱠᱟ

ᱢᱤᱫᱴᱟᱝ ᱥᱟᱭᱟᱵ ᱵᱚᱛᱚᱞ ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱒᱐ ᱴᱟᱠᱟ
᱔ ᱜᱚᱴᱟᱝ ᱥᱟᱭᱟᱵ ᱵᱚᱛᱚᱞ ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ = ᱒᱐ x ᱔
= ᱘᱐ ᱴᱟᱠᱟ

ᱮᱱᱠᱷᱮᱱ ᱕ ᱜᱚᱴᱟᱝ ᱚᱞ ᱥᱮᱢᱮᱫ ᱟᱨ ᱔ ᱜᱚᱴᱟᱝ ᱥᱟᱭᱟᱵ ᱵᱚᱛᱚᱞ ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱢᱮᱥᱟ ᱠᱟᱛᱮ = ᱕᱐ + ᱘᱐
= ᱑᱓᱐ ᱴᱟᱠᱟ

∴ ᱕ ᱜᱚᱴᱟᱝ ᱚᱞ ᱥᱮᱢᱮᱫ ᱵᱚᱛᱚᱞ ᱟᱨ ᱔ ᱜᱚᱴᱟᱝ ᱥᱟᱭᱟᱵ ᱵᱚᱛᱚᱞ ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱢᱮᱥᱟ ᱠᱟᱛᱮ ᱑᱓᱐ ᱴᱟᱠᱟ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ ।

ᱦᱮᱱᱫᱟ ᱠᱩᱠᱞᱤ

᱑. ᱜᱩᱬᱟᱹᱣ ᱢᱮ –

᱖ x ᱒	᱑᱒ x ᱓	᱓᱗ x ᱕	᱕᱒ x ᱖	᱑᱕᱒ x ᱘
᱓᱒ x ᱘	᱔᱕ x ᱑᱒	᱘᱗ x ᱕	᱕᱒ x ᱒	᱔᱒ x ᱕᱗

᱒. ᱜᱩᱬᱟᱹᱣ ᱢᱮ –

᱑᱒ x ᱒ =.......... ᱓᱒ x ᱓ =.......... ᱕᱖ x ᱕ =..........
᱘᱖ x ᱘ =.......... ᱒᱗ x ᱗ =.......... ᱔᱕ x ᱗ =..........
᱗᱕ x ᱒ =.......... ᱑᱒ x ᱗ =.......... ᱑᱒᱓ x ᱓ =..........

᱓. ᱢᱤᱫ ᱜᱩᱬᱟᱹᱣ ᱨᱮ ᱜᱩᱬᱟᱹᱣ ᱥᱟ ᱑᱒ ᱟᱨ ᱜᱩᱬᱟᱹᱣ ᱦᱟ ᱒ । ᱮᱱᱠᱷᱮᱱ ᱜᱩᱬᱚᱱ ᱛᱤᱱᱟᱜ ?

᱔. ᱢᱤᱫ ᱜᱩᱬᱟᱹᱣ ᱨᱮ ᱜᱩᱬᱟᱹᱣ ᱥᱟ ᱓᱕ ᱟᱨ ᱜᱩᱬᱟᱹᱣ ᱦᱟ ᱕ । ᱮᱱᱠᱷᱮᱱ ᱜᱩᱬᱚᱱ ᱛᱤᱱᱟᱜ ?

᱕. ᱢᱤᱫᱴᱟᱝ ᱠᱮ.ᱡᱤ. ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱕᱐ ᱴᱟᱠᱟ । ᱮᱱᱠᱷᱮᱱ ᱓ ᱠᱮ.ᱡᱤ. ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱛᱤᱱᱟᱜ ?

᱗. ᱢᱤᱫᱴᱟᱝ ᱢᱮᱨᱚᱢᱟᱜ ᱜᱚᱱᱚᱝ ᱕᱐᱐ ᱴᱟᱠᱟ ᱾ ᱮᱱᱠᱷᱟᱱ ᱗ ᱜᱚᱴᱟᱝ ᱢᱮᱨᱚᱢᱟᱜ ᱜᱚᱱᱚᱝ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

᱘. ᱢᱤᱫᱴᱟᱝ ᱛᱷᱟᱹᱨᱤ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱒᱕ ᱴᱟᱠᱟ, ᱢᱤᱫᱴᱟᱝ ᱜᱤᱱᱟᱹ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱑᱖ ᱴᱟᱠᱟ, ᱢᱤᱫᱴᱟᱝ ᱜᱤᱞᱟᱹᱥ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱑᱐ ᱴᱟᱠᱟ ᱟᱨ ᱢᱤᱫᱴᱟᱝ ᱞᱚᱴᱟ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱒᱕ ᱴᱟᱠᱟ ᱾ ᱮᱱᱠᱷᱟᱱ ᱡᱚᱛᱚᱣᱟᱜ ᱜᱮ ᱕ ᱠᱟᱛᱮ ᱠᱤᱨᱤᱧ ᱞᱮᱠᱷᱟᱱ ᱛᱤᱱᱟᱹᱜ ᱴᱟᱠᱟ ᱦᱩᱭᱩᱜ-ᱟ ?

᱙. ᱢᱤᱫᱴᱟᱝ ᱱᱚᱱᱚᱞ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱕ ᱴᱟᱠᱟ, ᱢᱤᱫᱴᱟᱝ ᱞᱟᱪᱷᱟ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱙ ᱴᱟᱠᱟ ᱟᱨ ᱢᱤᱫᱴᱟᱝ ᱵᱚᱛᱚᱞ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱑᱐ ᱴᱟᱠᱟ ᱾ ᱮᱱᱠᱷᱟᱱ ᱥᱩᱱᱟᱹ ᱖ ᱜᱚᱴᱟᱝ ᱱᱚᱱᱚᱞ, ᱒ ᱭᱟ ᱞᱟᱪᱷᱟ ᱟᱨ ᱖ ᱜᱚᱴᱟᱝ ᱵᱚᱛᱚᱞ-ᱮ ᱠᱤᱨᱤᱧ ᱟᱹᱜᱩ ᱠᱮᱜ-ᱟ ᱾ ᱛᱚᱵᱮ ᱡᱚᱛᱚ ᱨᱮ ᱛᱤᱱᱟᱹᱜ ᱴᱟᱠᱟ ᱮᱢ ᱠᱟᱛᱮᱭ ᱟᱹᱜᱩ ᱠᱮᱜ-ᱟ ?

ᱦᱟᱴᱟᱣ (÷)

ᱫᱟᱵᱟᱣ ᱫᱟᱵᱮ ᱛᱮ ᱦᱟᱹᱴᱤᱧ ᱜᱮ ᱦᱟᱴᱟᱣ ᱵᱚ ᱢᱮᱛᱟᱜ ᱠᱟᱱᱟ ᱾ ᱦᱟᱴᱟᱣ ᱨᱮᱱᱟᱜ ᱪᱤᱱᱦᱟᱹ ᱫᱚ “÷” ᱾

ᱦᱟᱴᱟᱣ ᱨᱮ ᱡᱟᱦᱟᱸᱭᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ ᱩᱱᱤᱫᱚ “ᱦᱟᱴᱟᱣ ᱦᱟ”, ᱚᱠᱚᱭᱮ ᱦᱟᱹᱴᱤᱧ ᱦᱚᱪᱚᱜ-ᱟ ᱩᱱᱤᱫᱚ “ᱦᱟᱴᱟᱣ ᱪᱟ”, ᱦᱟᱹᱴᱤᱧ ᱨᱮᱱᱟᱜ ᱚᱨᱡᱚ ᱫᱚ “ᱦᱟᱡᱟ” ᱟᱨ ᱦᱟᱹᱴᱤᱧ ᱨᱮᱱᱟᱜ ᱥᱟᱨᱮᱡ ᱫᱚ “ᱦᱟᱴᱟᱣ ᱥᱟ” ᱵᱚ ᱢᱮᱛᱟᱜ ᱠᱟᱱᱟ ᱾

ᱦᱟᱴᱟᱣ ᱨᱮᱭᱟᱜ ᱛᱤᱱᱟᱹᱜ ᱫᱷᱟᱹᱡ ᱥᱩᱛᱩᱨ ᱠᱚ

ᱦᱟᱴᱟᱣ ᱦᱟ x ᱦᱟᱡᱟ + ᱦᱟᱴᱟᱣ ᱥᱟ = ᱦᱟᱴᱟᱣ ᱪᱟ
ᱦᱟᱴᱟᱣ ᱦᱟ = (ᱦᱟᱴᱟᱣ ᱪᱟ − ᱦᱟᱴᱟᱣ ᱥᱟ) ÷ ᱦᱟᱡᱟ

ᱦᱟᱴᱟᱣ ᱦᱟ) ᱦᱟᱴᱟᱣ ᱪᱟ (ᱦᱟᱡᱟ

— *************

ᱦᱟᱴᱟᱣ ᱥᱟ

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] ?

[illegible]

[illegible]

[illegible] [illegible]:– [illegible] ?

[illegible]:– [illegible] –

$$[illegible] = \frac{[illegible] - [illegible]}{[illegible]}$$

$$= \frac{[illegible] - [illegible]}{[illegible]} = \frac{[illegible]}{[illegible]} = [illegible]$$

∴ [illegible] ।

[illegible] [illegible]:– [illegible] ?

[illegible]:– [illegible] ।

[illegible] –

$$= [illegible] \div [illegible] = [illegible]$$

∴ [illegible] ।

[illegible] [illegible]:– [illegible] ?

[illegible]:– [illegible] –

$$[illegible] = \frac{[illegible] - [illegible]}{[illegible]}$$

$$= \frac{[illegible] - [illegible]}{[illegible]} = \frac{[illegible]}{[illegible]} = [illegible]$$

[illegible] = [illegible] + [illegible]

$$= [illegible] + [illegible] = [illegible]$$

∴ [illegible] ।

[illegible]

- [illegible]

- [illegible]

- [illegible]

- [illegible]

- [illegible]

  ([illegible] + [illegible] + [illegible]) − ([illegible] + 0)

  = [illegible] − [illegible] = [illegible]

  [illegible]

ᱦᱮᱣᱟ ᱠᱩᱠᱞᱤ

᱑. ᱑᱖ ÷ ᱒ =........ ᱑᱒ ÷ ᱓ =........ ᱓᱖ ÷ ᱖ =........
᱒᱓ ÷ ᱓ =........ ᱖᱐ ÷ ᱑᱒ =........ ᱑᱐᱐ ÷ ᱒ =........
᱒᱕᱐ ÷ ᱕ =........ ᱘᱘ ÷ ᱘ =........ ᱗᱕ ÷ ᱒᱕ =........

᱒. ᱒) ᱕᱖ (᱕) ᱙᱖ (᱓) ᱒᱕᱘ (

᱘) ᱒᱖᱓᱐ (᱑᱑) ᱑᱒᱘᱙ (᱔) ᱙᱘᱕ (

᱖) ᱘᱕᱘ (᱗) ᱒᱑ (᱙) ᱒᱘᱖᱘ (

᱓. ᱯᱷᱟᱹᱜᱩᱱ ᱒᱔ ᱜᱚᱴᱟᱝ ᱛᱤᱯᱤᱞᱮ ᱛᱤᱯᱩᱜ ᱠᱮᱜ-ᱟ ᱾ ᱚᱱᱟ ᱫᱚ ᱯᱷᱟᱹᱜᱩᱱ, ᱥᱟᱹᱜᱩᱱ ᱟᱨ ᱥᱮᱨᱟᱞ ᱯᱮ ᱦᱚᱲ ᱠᱚ ᱦᱟᱹᱴᱤᱧ ᱠᱮᱜ-ᱟ ᱾ ᱮᱱᱠᱷᱟᱱ ᱦᱚᱲᱚ ᱛᱤᱱᱟᱹᱜ ᱠᱟᱛᱮ ᱛᱤᱯᱤᱞ ᱠᱚ ᱯᱟᱣᱟᱭ ᱮᱱᱟ ?

᱔. ᱢᱤᱫ ᱦᱚᱲ ᱢᱤᱫᱴᱟᱝ ᱠᱟᱹᱢᱤ ᱯᱩᱨᱟᱹᱣ ᱞᱟᱹᱜᱤᱫᱛᱮ ᱑᱒ ᱫᱤᱱ ᱞᱟᱜᱟᱣ ᱠᱮᱜ-ᱟ ᱾ ᱚᱱᱟ ᱠᱟᱹᱢᱤ ᱯᱮ ᱦᱚᱲ ᱛᱮᱞᱟᱜ ᱠᱟᱹᱢᱤ ᱞᱮᱠᱷᱟᱱ ᱛᱤᱱᱟᱹᱜ ᱫᱤᱱ ᱛᱮᱠᱚ ᱯᱩᱨᱟᱹᱣᱟ ?

᱕. ᱴᱷᱩᱢᱯᱩ ᱑᱐ ᱜᱚᱴᱟᱝ ᱦᱚᱛᱚᱫ ᱦᱟᱴ ᱟᱹᱠᱨᱤᱧᱮ ᱤᱫᱤ ᱞᱮᱜ-ᱟ ᱾ ᱡᱚᱛᱚ ᱦᱚᱛᱚᱫ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱩᱮᱥᱟ ᱠᱟᱛᱮ ᱑᱕᱐ ᱴᱟᱠᱟ ᱾ ᱮᱱᱠᱷᱟᱱ ᱢᱤᱫᱴᱟᱝ ᱦᱚᱛᱚᱫ ᱨᱮᱱᱟᱜ ᱜᱚᱱᱚᱝ ᱛᱤᱱᱟᱹᱜ ?

᱖. ᱵᱩᱲᱦᱟᱹ ᱛᱩᱵᱩᱲ ᱢᱟᱭ ᱣᱟᱹᱡᱜ ᱥᱤᱯᱩᱜ ᱞᱟᱹᱜᱤᱫ ᱑᱘ ᱢᱟᱦᱟ ᱞᱟᱜᱟᱣ ᱠᱟᱱᱟ ᱾ ᱮᱱᱠᱷᱟᱱ ᱢᱤᱫ ᱢᱟᱭ ᱣᱟᱹᱡᱜ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ᱫᱤᱱ ᱛᱮ ᱥᱤ ᱯᱩᱨᱟᱹᱣᱚᱜ ?

᱗. ᱢᱤᱫ ᱦᱟᱴᱟᱭ ᱨᱮ ᱦᱟᱴᱟᱭ ᱦᱟ ᱘, ᱦᱟᱣᱟ ᱙ ᱟᱨ ᱦᱟᱴᱟᱭ ᱥᱟ ᱓ ᱠᱷᱟᱱ ᱦᱟᱴᱟᱭ ᱡᱟ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

᱘. ᱢᱤᱫ ᱦᱟᱴᱟᱭ ᱨᱮ ᱦᱟᱴᱟᱭ ᱡᱟ ᱔᱕᱘᱐, ᱦᱟᱣᱟ ᱘᱕ ᱟᱨ ᱦᱟᱴᱟᱭ ᱥᱟ ᱕ ᱠᱷᱟᱱ ᱦᱟᱴᱟᱭ ᱦᱟ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

᱙. ᱵᱟᱨᱮᱭᱟ ᱮᱞ ᱨᱮᱭᱟᱜ ᱥᱮᱞᱮᱫ ᱟᱨᱩᱟ ᱕᱓᱙ ᱟᱨ ᱵᱷᱮᱜᱮᱫ ᱟᱨᱩᱟ ᱒᱙ ᱾ ᱮᱭᱠᱷᱟᱛᱭ ᱦᱮᱠᱛᱭ ᱮᱞ ᱠᱛᱭ ᱫᱟ ᱚᱛᱭᱟᱹᱜ ᱚᱛᱭᱟᱹᱜ ?

᱑᱐. ᱵᱟᱨᱮᱭᱟ ᱮᱞ ᱨᱮᱭᱟᱜ ᱥᱮᱞᱮᱫ ᱟᱨᱩᱟ ᱑᱒᱓᱐ ᱟᱨ ᱵᱷᱮᱜᱮᱫ ᱟᱨᱩᱟ ᱑᱐ ᱾ ᱮᱭᱠᱷᱟᱛᱭ ᱦᱮᱠᱛᱭ ᱮᱞ ᱠᱛᱭ ᱫᱟ ᱚᱛᱭᱟᱹᱜ ᱚᱛᱭᱟᱹᱜ ?

ᱥᱟᱞᱣᱮ

ᱥᱟᱞᱣᱮ ᱫᱟ ᱚᱛᱭᱟᱹᱜ ᱜᱟᱭ ᱮᱞᱮᱞ ᱠᱟ ᱥᱮᱞᱮᱫ, ᱵᱷᱮᱜᱮᱫ, ᱜᱟᱵᱟᱢ, ᱣᱟᱱᱟᱢ ᱢᱛᱭᱣᱟ. ᱠᱟᱚᱮ ᱜᱟᱵᱟᱭ ᱠᱟᱜ ᱮᱞᱮᱞ ᱠᱟᱭᱭᱟ ᱾ ᱟᱭᱟ ᱠᱟ ᱥᱟᱞᱣᱮ ᱣᱦᱭᱦᱜ ᱚᱮ ᱟᱭᱟ ᱨᱮᱭᱟᱜ ᱟᱨᱩᱟ ᱟᱜᱟᱠ ᱣᱦᱭᱦᱜ-ᱟ ᱾

ᱭᱟᱩᱟ ᱥᱟᱞᱣᱮ ᱟᱠᱚᱟ ᱨᱮ ᱚᱛᱭᱟᱹᱜ ᱜᱟᱭ ᱦᱭᱣᱟᱹᱨ ᱫᱟᱣᱟ ᱣᱦᱭᱦᱜ-ᱟ ᱾ ᱟᱭᱟ ᱠᱟᱫᱟ ᱣᱟᱹᱰᱦᱵ ᱾ ᱣᱟᱹᱰᱦᱵ ᱫᱟ ᱜ ᱞᱮᱠᱟᱭᱟᱜ ᱯᱮᱭᱟᱜ (᱑) ᱜᱟᱨ ᱣᱟᱹᱰᱦᱵ ———

(᱒) ᱢᱟ'ᱫᱟ ᱣᱟᱹᱰᱦᱵ ( )

(᱓) ᱠᱟᱹᱰᱵᱦᱜ ᱣᱟᱹᱰᱦᱵ { }

(᱔) ᱜᱟᱺᱱ ᱣᱟᱹᱰᱦᱵ [ ]

ᱥᱟᱞᱣᱮ ᱟᱠᱚᱟ ᱨᱮᱫᱟ ᱯᱟᱰᱟᱦ ᱫᱟ ᱳᱮᱞ ᱣᱦᱭᱦᱜ-ᱟ ᱜᱟᱨ ᱣᱟᱹᱰᱦᱵ ᱨᱮ ᱢᱮᱫ ᱯᱮᱭᱟᱜ-ᱟ, ᱟᱭᱟ ᱨᱮᱭᱟᱜ ᱟᱨᱩᱟ ᱟᱜᱟᱠ ᱣᱦᱭᱦᱜ-ᱟ ᱾ ᱟᱭᱟ ᱚᱟᱭᱟᱯ ᱢᱟ'ᱫᱟ ᱣᱟᱹᱰᱦᱵ, ᱟᱭᱟ ᱚᱟᱭᱟᱯ ᱠᱟᱹᱰᱵᱦᱜ ᱣᱟᱹᱰᱦᱵ, ᱟᱭᱟ ᱚᱟᱭᱟᱯ ᱜᱟᱺᱱ ᱣᱟᱹᱰᱦᱵ, ᱟᱭᱟ ᱚᱟᱭᱟᱯ ᱫᱟ ᱟᱭᱟ ᱠᱟ ᱨᱮᱭᱟᱜ, ᱟᱭᱟ ᱚᱟᱭᱟᱯ ᱣᱟᱱᱟᱢ, ᱟᱭᱟ ᱚᱟᱭᱟᱯ ᱜᱟᱵᱟᱢ, ᱟᱭᱟ ᱚᱟᱭᱟᱯ ᱥᱮᱞᱮᱫ, ᱟᱭᱟ ᱚᱟᱭᱟᱯ ᱵᱷᱮᱜᱮᱫ ᱠᱟᱚᱮ ᱥᱟᱞᱣᱮ ᱟᱨᱩᱟ ᱳᱟᱯ ᱣᱦᱭᱦᱜ-ᱟ ᱾

ᱥᱟᱞᱣᱮ ᱨᱮᱭᱟᱜ ᱫᱭᱟᱹᱰ ᱥᱦᱚᱦᱨ ᱫᱟ
ᱣᱟ – ᱣᱟᱹᱰᱦᱵ, ᱨᱮ – ᱨᱮᱭᱟᱜ, ᱣᱟ – ᱣᱟᱱᱟᱢ
ᱜᱟ – ᱜᱟᱵᱟᱢ, ᱥᱮ – ᱥᱮᱞᱮᱫ, ᱵᱷᱮ – ᱵᱷᱮᱜᱮᱫ

[illegible]

𑣡. [illegible]:– [illegible] –

𑣢𑣠 − [𑣡𑣣 − {𑣧 ÷ 𑣧 x 𑣥 − (𑣢 − 𑣡)}]

[illegible] − 𑣢𑣠 − [𑣡𑣣 − {𑣧 ÷ 𑣧 x 𑣥 − (𑣢 − 𑣡)}]

= 𑣢𑣠 − [𑣡𑣣 − {𑣧 ÷ 𑣧 x 𑣥 − 𑣡}]

= 𑣢𑣠 − [𑣡𑣣 − {𑣡 x 𑣥 − 𑣡}]

= 𑣢𑣠 − [𑣡𑣣 − {𑣥 − 𑣡}]

= 𑣢𑣠 − [𑣡𑣣 − 𑣤] = 𑣢𑣠 − 𑣩 = 𑣡𑣡

𑣢. [illegible]:– [illegible] –

[{𑣣 x 𑣢 − (𑣢 x $\overline{𑣦 − 𑣣}$)} − {(𑣡𑣥 ÷ $\overline{𑣨 − 𑣣}$) + (𑣡𑣢 ÷ $\overline{𑣤 − 𑣢}$)}]

[illegible] − [{𑣣 x 𑣢 − (𑣢 x $\overline{𑣦 − 𑣣}$)} − {(𑣡𑣥 ÷ $\overline{𑣨 − 𑣣}$) + (𑣡𑣢 ÷ $\overline{𑣤 − 𑣢}$)}]

= [{𑣣 x 𑣢 − (𑣢 x 𑣣)} − {(𑣡𑣥 ÷ 𑣥) + (𑣡𑣢 ÷ 𑣢)}]

= [{𑣣 x 𑣢 − 𑣦} − {𑣣 + 𑣦}]

= [{𑣦 − 𑣦} − 𑣩] = [𑣠 − 𑣩] = −𑣩

[illegible]

𑣡. 𑣨𑣡 ÷ (𑣡𑣩 − 𑣣 + 𑣧)

𑣢. 𑣡𑣨 x 𑣣 ÷ 𑣣 x 𑣣

𑣣. 𑣡𑣠𑣨 x 𑣢𑣥 − 𑣢 x 𑣡𑣨 − 𑣥 x 𑣡𑣠𑣨 + 𑣢𑣢 x 𑣡𑣨

𑣤. 𑣡𑣥𑣢𑣥 ÷ (𑣥 x 𑣥) − 𑣡𑣠𑣨 ÷ (𑣣 x 𑣡) + 𑣢𑣠 ÷ (𑣢 x 𑣥)

𑣥. 𑣥𑣠 − [𑣦𑣠 − {𑣨 𑣢 𑣩 − (𑣤 − 𑣡)}]

ᱜᱟᱬᱟᱣᱤᱭᱟᱹ ᱟᱨ ᱜᱟᱬᱟᱣᱮᱛ

ᱜᱟᱬᱟᱣᱤᱭᱟᱹ — ᱢᱤᱫ ᱮᱞ ᱨᱤᱭ ᱜᱟᱬᱟᱣ ᱛᱮ ᱨᱟᱹᱡᱩᱫ ᱚᱸᱜᱚᱲ ᱠᱚᱜᱮ ᱚᱮᱟ ᱨᱤᱭ ᱜᱟᱬᱟᱣᱤᱭᱟᱹ ᱠᱚᱫᱚ ।

ᱡᱮᱞᱮᱠ — ᱑᱒ = ᱑ x ᱑᱒
= ᱒ x ᱖
= ᱓ x ᱔

ᱱᱚᱸᱰᱮ ᱑᱒ ᱨᱤᱭ ᱜᱟᱬᱟᱣᱤᱭᱟᱹ ᱠᱚᱫᱚ —
᱑, ᱒, ᱓, ᱔, ᱖ ᱟᱨ ᱑᱒ ।

ᱜᱟᱬᱟᱣᱮᱛ — ᱬᱟᱨᱮᱭᱟ ᱥᱮᱭᱟ ᱮᱞ ᱨᱮᱭᱟᱜ ᱜᱟᱬᱟᱣᱤᱭᱟᱹ. ᱨᱤᱮ ᱢᱟᱣᱛᱮ ᱜᱟᱬᱟᱣᱤᱭᱟᱹ. ᱨᱤᱮ ᱢᱤ-ᱢᱤᱫ ᱴᱟᱝ ᱜᱟᱬᱟᱣᱮᱛ ᱠᱟᱯᱮᱟᱠᱚ । ᱡᱮᱞᱮᱠ —

᱔ x ᱑ = ᱔, ᱔ x ᱒ = ᱘, ᱔ x ᱓ = ᱑᱒, ᱔ x ᱔ = ᱑᱖

ᱱᱚᱸᱰᱮ ᱔, ᱘, ᱑᱒, ᱑᱖ ... ᱫᱚ ᱔ ᱨᱮᱭᱟᱜ ᱢᱤ-ᱢᱤᱫ ᱴᱟᱝ ᱜᱟᱬᱟᱣᱮᱛ ᱠᱟᱯᱮᱟᱠᱚ । ᱚᱮᱠᱟ ᱜᱮ ᱖ ᱨᱮᱭᱟᱜ ᱜᱟᱬᱟᱣᱮᱛ ᱠᱚᱫᱚ — ᱖, ᱑᱒, ᱑᱘, ᱒᱔, ...

ᱬᱟᱵᱟᱭ ᱛᱮᱭᱟᱜ —

ᱮᱞᱮᱞ ᱠᱚᱨᱮᱭᱟᱜ ᱜᱟᱬᱟᱣᱮ ᱟᱨ ᱜᱟᱬᱟᱣᱤᱭᱟᱹ. ᱤᱫᱤ ᱠᱟᱛᱮ ᱛᱤᱮᱟᱹᱜ ᱠᱟᱛᱵᱟ ᱬᱚ ᱪᱮᱫᱟ —

(᱑) 'ᱚ' ᱢᱩᱫᱤ 'ᱟ' ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ,ᱟ ᱮᱮᱠᱵᱟᱯᱮ ᱟ, ᱚ ᱭᱤᱡ ᱢᱤᱫ ᱜᱟᱬᱟᱣᱤᱭᱟᱹ. ᱟᱨ ᱚ ᱫᱚ ᱟ ᱭᱤᱡ ᱜᱟᱬᱟᱣᱮᱛ ।

(᱒) ᱡᱚᱛᱚ ᱮᱞᱮᱞ ᱨᱤᱮᱟᱜ ᱢᱤᱫᱴᱟᱝ ᱜᱟᱬᱟᱣᱤᱭᱟᱹ. ᱫᱚ ᱑ ᱠᱟᱯᱮᱟ ।

(᱓) ᱡᱚᱛᱚ ᱮᱞ ᱜᱮ ᱟᱡ ᱢᱤᱫᱴᱟᱝ ᱜᱟᱬᱟᱣᱤᱭᱟᱹ. ᱠᱟᱯᱮᱟ ।

(᱔) ᱡᱟᱦᱟᱸ ᱮᱞ ᱨᱮᱭᱟᱜ ᱜᱮ ᱦᱩᱰᱤᱧ ᱜᱟᱬᱟᱣᱤᱭᱟᱹᱟ ᱫᱚ ᱟᱡ ᱜᱮ ।

(᱕) ᱡᱟᱦᱟᱸ ᱞᱮᱠᱟᱯᱮ ᱜᱟᱬᱟᱣ ᱨᱮᱜᱮ ᱚ x ᱟ = ᱤ ᱠᱵᱟᱯᱮ, ᱚ ᱨᱮᱭᱟᱜ ᱢᱤᱫ ᱜᱟᱬᱟᱣᱮᱛ ᱤ ᱟᱨ ᱟ ᱨᱮᱭᱟᱜ ᱢᱤᱫ ᱜᱟᱬᱟᱣᱮᱛ ᱦᱚᱸ ᱤ ᱦᱩᱭᱩᱜ-ᱟ ।

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]÷[illegible]=0

[illegible] '0' [illegible]

[illegible]x0=0

[illegible]x0=0

᱑᱒᱓x0=0

∴ ᱕, ᱑᱕, ᱑᱒᱓ ᱮᱴᱟᱜ ᱡᱟᱛᱟ ᱥᱮ '0' ᱥᱮ ᱦᱟᱹᱴᱤᱧᱚᱜᱼᱟ. ᱠᱟᱱᱟᱠᱟ । ᱱᱮᱱᱛᱮ ᱠᱩᱞ ᱵᱤᱨ ᱠᱮᱛᱞᱮᱨ ᱮᱞᱮᱞ ᱠᱟᱱᱟ ।

ᱯᱩᱨ.ᱥᱩᱯ. ᱮᱞᱮᱞ –

᱖ ᱥᱮᱨᱮᱧ ᱦᱟᱹᱴᱤᱧᱚᱜᱼᱟ. ᱠᱚ ᱢᱩᱨᱩᱜ ᱠᱟᱱᱟ

᱑, ᱒, ᱓ ᱟᱨ ᱖ ।

$(᱑+᱒+᱓+᱖) = ᱑᱒$

$᱖x᱒ = ᱑᱒$

ᱮᱛᱚᱢ ᱮᱞ ᱠᱮᱜᱼᱟ ᱡᱤ, ᱖ ᱥᱮᱨᱮᱧ ᱦᱟᱹᱴᱤᱧᱚᱜᱼᱟ. ᱠᱚᱥᱟᱜ ᱠᱮᱞᱮᱨ = ᱖ ᱥᱮ ᱒ ᱟᱨ ᱢᱩᱨᱩᱜ ᱠᱟᱱᱟ । ᱮᱛᱦᱚᱵ ᱜᱮ ᱡᱟᱢᱟᱜ ᱮᱞᱮᱞ ᱦᱟᱹᱴᱤᱧᱚᱜᱼᱟ. ᱠᱚᱥᱮᱨᱮᱜ ᱠᱮᱞᱮᱨ ᱛᱥᱡᱛ ᱠᱟᱞᱟᱜ ᱛᱮᱱ ᱮᱞᱮᱞ ᱥᱮᱨᱮᱜ ᱒ ᱟᱨ ᱠᱟᱞᱟᱜ ᱠᱩᱴᱟᱱᱮᱛᱜᱼᱟ, ᱛᱮᱱ ᱫᱚ ᱯᱩᱨ.ᱥᱩᱯ. ᱮᱞᱮᱞ ᱢᱚ ᱵᱮᱛᱟᱜᱼᱟ ।

ᱢᱮᱥᱟ ᱠᱩᱠᱞᱤ

᱑. ᱞᱟᱛᱟᱥ ᱥᱮ ᱛᱞ ᱮᱱ ᱮᱞᱮᱞ ᱠᱚᱥᱮᱱᱟᱜ ᱦᱟᱹᱴᱤᱧᱚᱜᱼᱟ. ᱠᱚ ᱢᱮᱱᱟᱣ ᱠᱚᱱᱮ ।

᱓᱐, ᱒᱖, ᱓᱔, ᱑᱒᱕, ᱑᱔᱓, ᱔᱒᱖

᱒. ᱞᱟᱛᱟᱥ ᱥᱮ ᱛᱞ ᱮᱱ ᱮᱞᱮᱞ ᱠᱯᱛᱱ ᱛᱠᱛᱨᱟᱜ ᱦᱟᱹᱴᱤᱧᱚᱜᱼᱟ. ᱑᱖ ᱠᱟᱱᱟ ?

᱓᱓᱑᱖᱕, ᱔᱕᱐᱒᱒, ᱑᱖᱓᱐᱑᱔

᱓. (ᱛ) ᱮᱛᱦᱚᱵ ᱵᱤᱨ ᱮᱞᱮᱞ ᱵᱮᱱᱟᱜᱼᱟ ᱡᱟᱢᱟᱜᱨᱟᱜ ᱦᱟᱹᱴᱤᱧᱚᱜᱼᱟ. ᱢᱚ.ᱮᱩᱜᱼᱟ ?

(ᱠ) ᱑ ᱠᱯᱛᱱ ᱒᱐ ᱛᱟᱞᱟ ᱥᱮ ᱒ ᱨᱟ ᱦᱟᱹᱴᱤᱧᱚᱜᱼᱟ. ᱛᱟᱢᱮ'ᱮ ᱛᱤᱱᱟᱜ ᱮᱞᱮᱞ ᱵᱮᱱᱟᱜᱼᱟ ?

᱔. (ᱛ) ᱛᱮᱠᱟᱱ ᱵᱤᱥᱟᱹᱭ ᱮᱞ ᱞᱟ.ᱨ ᱥᱮ, ᱡᱟᱢᱟᱜ ᱛᱮ ᱞᱟᱛᱟᱥ ᱛᱞᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱢᱟᱹᱭᱟᱢᱟᱜᱼᱟ –

᱑᱓, ᱒᱔, ᱔᱒, ᱖᱐

(ᱠ) ᱛᱮᱠᱟᱱ ᱵᱤᱥᱟᱹᱭ ᱮᱞ ᱞᱟ.ᱨ ᱥᱮ, ᱡᱟᱢᱟᱜ ᱛᱮ ᱞᱟᱛᱟᱥ ᱛᱞᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱢᱟᱹᱭᱟᱢᱟᱜᱼᱟ –

᱒, ᱓, ᱔, ᱕

᱕. ᱞᱟᱛᱟᱨ ᱨᱮ ᱚᱞᱮᱨ ᱮᱞᱮᱞ ᱠᱚᱚᱨ ᱚᱠᱟ ᱠᱚᱥᱚ ᱟ.ᱛᱟ.ᱥᱟ ᱮᱞᱮᱞ ᱠᱟᱨᱟ ?

᱓᱑, ᱕᱑, ᱙᱑, ᱑᱐᱙

᱖. ᱑᱐᱐ ᱛᱚᱱᱟᱛᱚᱱ ᱨᱮ ᱩᱱᱥ ᱛᱥᱨᱛᱮ ᱖ ᱜᱚᱦᱟᱞ ᱠᱮᱛᱞᱮᱥ ᱮᱞᱮᱞ ᱚᱞ ᱠᱚᱢᱮ ।

᱗. ᱑ ᱠᱚᱚᱨ ᱑᱐᱐ ᱛᱚᱱᱟᱛᱚᱱ ᱨᱮ ᱩᱮᱨᱟᱜ ᱠᱚ ᱦᱚᱟ.ᱚᱠᱟ. ᱮᱞᱮᱞ ᱚᱞ ᱠᱚᱢᱮ ।

ᱛᱟᱜᱟᱨ ᱛᱮᱨᱟᱜ –

ᱛᱟᱥ ᱦᱟᱱᱟᱢ ᱠᱟᱛᱮ ᱨᱮᱦᱚ ᱚᱠᱟ ᱮᱞᱮᱞ ᱒, ᱓, ᱕, ᱙ ᱟᱨ ᱑᱐ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ ᱚᱨᱟᱛᱚ ᱛᱟᱜᱟᱨ ᱥᱟᱨᱮᱨᱟᱜ ᱠᱟᱨᱟ । ᱩᱱᱥᱦᱟᱥ ᱮᱞ ᱔, ᱖, ᱘ ᱟᱨ ᱑᱑ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ ᱢᱮ ᱛᱟᱥᱟ, ᱨᱚᱱᱟ ᱦᱚ ᱛᱟᱥ ᱦᱟᱱᱟᱢ ᱠᱟᱛᱮ ᱛᱚ ᱛᱟᱜᱟᱨ ᱥᱟᱨᱮᱨᱟᱜ-ᱟ ।

(ᱚ) ᱔ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ ᱛᱚᱦᱚᱨ – ᱩᱱᱥᱦᱟᱥ ᱮᱞ ᱨᱮᱨᱟᱜ ᱜᱮᱞᱟᱜ ᱟᱨ ᱩᱱᱥᱟᱜ ᱦᱚᱟᱧ ᱨᱱᱮ ᱮᱞᱠᱱᱮ ᱧᱩᱥᱱ ᱔ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ, ᱮᱨᱠᱚᱟᱨ ᱚᱨᱟ ᱮᱞᱮᱞ ᱔ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ ।

ᱧᱮᱞᱮᱠ – ᱖᱓᱒᱒᱒ । ᱨᱚᱹᱟᱮ ᱜᱮᱞᱟᱜ ᱟᱨ ᱩᱱᱥᱟᱜ ᱦᱚᱟᱧ ᱨᱮᱨᱟᱜ ᱮᱞᱮᱞ ᱥᱚ ᱒᱒ । ᱒᱒, ᱔ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ । ᱛᱚᱵᱮ ᱕᱓᱒᱒᱒ ᱥᱚ ᱔ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ । (ᱦᱟᱱᱟᱢ ᱠᱟᱛᱮ ᱵᱮᱞᱩᱟ)

(ᱛ) ᱖ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ ᱦᱚᱦᱚᱨ – ᱧᱟᱦᱟ: ᱮᱞᱮᱞ ᱒ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ ᱟᱨ ᱓ ᱛᱮᱦᱚ· ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ ᱚᱨᱟ ᱥᱚ ᱖ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ ।

ᱧᱮᱞᱮᱠ – ᱒᱐᱓᱔ । ᱨᱚᱹᱟᱮ ᱩᱧᱥᱟ.ᱥ ᱮᱞ ᱔ । ᱚᱨᱟᱛᱮ ᱒ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ । ᱟᱨᱦᱚ· ᱨᱚᱢᱟ ᱮᱞᱮᱞ ᱠᱚᱢᱟᱜ ᱠᱮᱞᱮᱥ ᱚᱨᱧᱚ ᱒+᱐+᱓+᱔=᱙ । ᱚᱨᱟᱛᱮ ᱨᱚᱢᱟ ᱓ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ । ᱛᱚᱵᱮ ᱨᱚᱢᱟ ᱮᱞᱮᱞ ᱖ ᱛᱮ ᱦᱟᱹᱴᱤᱧᱚᱜ-ᱟ । (ᱦᱟᱱᱟᱢ ᱠᱟᱛᱮ ᱵᱮᱞᱩᱟ)

(᱘) ᱘ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ ᱛᱚᱦᱚᱨ — ᱡᱟᱦᱟᱸ ᱮᱞᱮᱞ ᱨᱮᱱᱟᱜ ᱮᱠᱟᱭᱟᱜ, ᱜᱮᱞᱟᱜ ᱟᱨ ᱥᱟᱭᱟᱜ ᱴᱷᱟᱶ ᱨᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱡᱩᱢᱤᱫ ᱘ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ, ᱮᱱᱠᱷᱟᱱ ᱚᱱᱟ ᱮᱞᱮᱞ ᱘ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ ।

ᱡᱮᱞᱮᱠ — ᱖᱘᱓᱒᱐᱘ । ᱱᱚᱸᱰᱮ ᱒᱐᱘, ᱘ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ । ᱚᱱᱟᱛᱮ ᱖᱘᱓᱒᱐᱘ ᱫᱚ ᱘ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ ।

(᱙) ᱑᱑ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ ᱛᱚᱦᱚᱨ — ᱡᱩᱢᱤᱫ ᱡᱟᱦᱟᱸ ᱮᱞᱮᱞ ᱨᱮᱱᱟᱜ ᱵᱤᱡᱚᱲ ᱴᱷᱟᱶ ᱨᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱨᱮᱱᱟᱜ ᱡᱚᱛᱚ ᱟᱨ ᱡᱩᱲᱤ ᱴᱷᱟᱶ ᱨᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱨᱮᱱᱟᱜ ᱡᱚᱛᱚ ᱨᱮᱱᱟᱜ ᱯᱷᱟᱨᱟᱠ '᱐' (ᱥᱩᱱ) ᱵᱟᱝᱠᱷᱟᱱ ᱑᱑ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ ᱮᱞᱮᱞ ᱦᱩᱭᱩᱜᱼᱟ, ᱮᱱᱠᱷᱟᱱ ᱚᱱᱟ ᱮᱞᱮᱞ ᱑᱑ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ ।

ᱡᱮᱞᱮᱠ — ᱖᱑᱘᱐᱙ । ᱱᱚᱸᱰᱮ ᱵᱤᱡᱚᱲ ᱴᱷᱟᱶ ᱨᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱫᱚ ᱙, ᱘, ᱖ ᱟᱨ ᱡᱩᱲᱤ ᱴᱷᱟᱶ ᱨᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱫᱚ ᱐, ᱑ ।

(᱙+᱘+᱖) − (᱐+᱑) = ᱒᱓−᱑ = ᱒᱒

᱒᱒, ᱑᱑ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ । ᱚᱱᱟᱛᱮ ᱖᱑᱘᱐᱙, ᱑᱑ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ ।

ᱟᱨᱦᱚᱸ ᱢᱤᱫᱴᱮᱱ ᱮᱞᱮᱞ ᱫᱚ ᱒᱕᱑᱑᱓᱐ । ᱱᱚᱸᱰᱮ ᱵᱤᱡᱚᱲ ᱴᱷᱟᱶ ᱨᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱫᱚ ᱐, ᱑, ᱕ ᱟᱨ ᱡᱩᱲᱤ ᱴᱷᱟᱶ ᱨᱮᱱ ᱮᱞᱮᱞ ᱠᱚ ᱫᱚ ᱓, ᱑, ᱒ ।

(᱐+᱑+᱕) − (᱓+᱑+᱒) = ᱖−᱖ = ᱐

ᱛᱚᱵᱮ ᱒᱕᱑᱑᱓᱐, ᱑᱑ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ ।

ᱦᱟᱴᱟᱣᱚᱜ ᱨᱮᱱᱟᱜ ᱛᱟᱞᱮᱱ.ᱨ ᱥᱟᱹᱠᱷᱭᱟᱹᱛ ᱫᱚᱦᱚᱣᱟᱱᱜ —

ᱨᱚᱦᱚᱲ — ᱥᱟᱱᱟᱢ ᱮᱞ ᱡᱩᱢᱤᱫ ᱨᱤᱱᱜ ᱮᱞ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ, ᱮᱱᱠᱷᱟᱱ ᱚᱱᱟ ᱨᱮᱱᱟᱜ ᱜᱩᱱᱤᱭᱟᱹᱨ. ᱠᱚᱛᱮ ᱫᱚ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ ।

ᱡᱮ.ᱞᱮ. — ᱘᱐, ᱑᱐ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ । ᱑᱐ ᱨᱮᱱᱟᱜ ᱜᱩᱱᱤᱭᱟᱹᱨ. ᱫᱚ ᱕ ᱟᱨ ᱒ ।

∴ ᱘᱐ ᱫᱚ ᱑᱐ ᱨᱮᱱᱟᱜ ᱜᱩᱱᱤᱭᱟᱹᱨ. ᱕ ᱟᱨ ᱒ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜᱼᱟ ।

ᱨᱟᱡᱟᱜ – ᱡᱟᱦᱟᱸ ᱮᱞᱮᱞ ᱡᱩᱲᱤ ᱟ.ᱢᱤᱜᱟᱨ ᱟ.ᱛᱟ.ᱜᱩ ᱮᱞᱮᱞ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ,ᱟ ᱮᱨᱠᱷᱟᱨ ᱵᱨᱟ ᱮᱞᱮᱞ ᱵᱨᱟ ᱠᱷᱟᱡᱮᱨᱟᱜ ᱦᱟᱫᱟᱟ ᱛᱮᱦᱮᱸ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ।

ᱩᱟ.ᱨᱠᱟ. – ᱓ ᱟᱡ ᱔ ᱢᱟᱨᱮᱟᱡ ᱟ.ᱛᱟ.ᱜᱩ ᱮᱞᱮᱞ । ᱒᱔, ᱓ ᱟᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ᱟᱡ ᱔ ᱛᱮᱦᱮᱸ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ । ᱵᱨᱟᱛᱮ ᱒᱔, ᱓x᱔ ᱮᱨᱠᱷᱟᱨ ᱑᱒ ᱛᱮᱦᱮᱸ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ।

ᱛᱮᱞᱟᱡᱟᱜ – ᱡᱩᱲᱤ ᱢᱟᱡᱮᱨᱟ ᱮᱞᱮᱞ ᱟᱡᱩᱤᱩᱴᱟᱥ ᱮᱞ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ, ᱮᱨᱠᱷᱟᱨ ᱩᱨᱠᱤᱨ ᱢᱟᱨᱮᱟᱡ ᱮᱞᱮᱞ ᱡᱮᱨᱟᱜ ᱞᱮᱞᱮᱩ ᱟᱡᱩᱟ ᱦᱟᱸ ᱵᱨᱟ ᱮᱞ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ।

ᱩᱟ.ᱨᱠᱟ. – ᱒᱐ ᱟᱡ ᱑᱕, ᱕ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ।
∴ ᱒᱐+᱑᱕ = ᱓᱕ ᱦᱟᱸ ᱕ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ।

ᱵᱩᱨᱟᱜ – ᱢᱟᱡᱮᱨᱟ ᱮᱞᱮᱞ ᱡᱩᱲᱤ ᱮᱴᱟᱜ ᱮᱞ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ, ᱮᱨᱠᱷᱟᱨ ᱢᱟᱨᱮᱟᱡ ᱮᱞᱮᱞ ᱡᱮᱨᱟᱜ ᱢᱷᱮᱜᱮᱩ ᱟᱡᱩᱟ ᱦᱟᱸ ᱵᱨᱟᱟ ᱮᱞ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ।

ᱩᱟ.ᱨᱠᱟ. – ᱓᱐ ᱟᱡ ᱑᱘ । ᱨᱟᱹᱡᱟ ᱢᱟᱨᱮᱟᱡ ᱖ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ । ᱨᱩᱠᱤᱨ ᱢᱟᱨᱮᱟᱡ ᱮᱞᱮᱞ ᱡᱮᱨᱟᱜ ᱢᱷᱮᱜᱮᱩ ᱟᱡᱟᱡᱟ = ᱓᱐–᱑᱘=᱑᱒, ᱨᱟᱹᱡᱟ ᱦᱟᱸ ᱖ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ।

ᱦᱮᱡᱟ ᱠᱩᱠᱞᱤ

᱑. ᱦᱟᱴᱟᱣᱚᱜ ᱛᱟᱦᱟᱡ ᱤᱩᱤᱠᱟᱛᱮ ᱞᱟᱛᱟᱡᱮ ᱟᱞᱮᱨ ᱮᱞᱮᱞ ᱠᱟ ᱟᱠᱟ ᱠᱟᱩᱟ ᱟᱠᱟ ᱡᱮᱨᱟᱜ ᱮᱞᱮᱞ ᱠᱟᱨᱟ ।
(ᱠ) ᱒ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ
(ᱟ) ᱓ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ
(ᱤ) ᱕ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ
᱒᱘, ᱑᱐᱒, ᱑᱑᱑, ᱑᱒᱕, ᱔᱒᱑, ᱔᱒᱐

᱒. ᱦᱟᱴᱟᱣᱚᱜ ᱛᱟᱦᱟᱡ ᱞᱮᱠᱟᱛᱮ ᱟᱠᱟ ᱮᱞᱮᱞ ᱩᱟ ᱘ ᱛᱮ ᱦᱟᱴᱟᱣᱚᱜ-ᱟ ᱢᱤᱜᱟ.ᱡ ᱠᱟᱛᱮ ᱯᱮᱞᱵᱮ ।
᱒᱑᱖᱖, ᱑᱕᱕᱐᱑᱖, ᱓᱑᱐᱒᱖

᱓. ᱖ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱟᱜ ᱪᱤᱱᱟᱹᱣ ᱢᱮ ।
᱑᱘᱕᱗᱗, ᱓᱐᱓᱐᱓᱐, ᱖᱗᱗᱕᱔᱙

᱔. ᱑᱑ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱟᱜ ᱪᱤᱱᱟᱹᱣ ᱢᱮ ।
᱑᱑᱓᱗᱔, ᱕᱓᱓᱕, ᱑᱗᱑᱘᱐᱙, ᱑᱐᱐᱐᱐᱐᱐᱑

᱕. ᱞᱟᱛᱟᱨ ᱨᱮ ᱚᱞᱮᱱ ᱮᱞᱮᱞ ᱠᱚᱨᱮᱠᱟᱚᱱ ᱚᱠᱟ ᱠᱚ ᱑᱘ ᱛᱮ
ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ?
᱑᱘᱘᱐᱖᱕, ᱑᱕᱐᱗᱗, ᱑᱖᱘᱐᱗᱕

᱖. ᱚᱠᱟ ᱠᱚ ᱥᱟᱹᱨᱤᱭᱟᱹ. ᱚᱹᱪᱮ ᱴᱷᱤᱠ ᱚᱞ ᱢᱮ ।
(ᱚ) ᱡᱩᱫᱤ ᱢᱤᱫᱴᱟᱹᱝ ᱮᱞᱮᱞ ᱓ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ,
ᱮᱱᱠᱷᱟᱱ ᱙ ᱛᱮᱚᱸ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ।
(ᱟ) ᱡᱩᱫᱤ ᱢᱤᱫᱴᱟᱹᱝ ᱮᱞᱮᱞ ᱙ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ,
ᱮᱱᱠᱷᱟᱱ ᱓ ᱛᱮᱚᱸ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ।
(ᱤ) ᱘ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ᱢᱚᱛᱚ ᱮᱞᱮᱞ ᱜᱮ ᱔ ᱛᱮᱠᱚᱱ
ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ।
(ᱩ) ᱔ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ᱢᱚᱛᱚ ᱮᱞᱮᱞ ᱜᱮ ᱘ ᱛᱮᱠᱚᱱ
ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ।

᱗. (ᱚ) ᱡᱩᱫᱤ ᱢᱤᱫᱴᱟᱹᱝ ᱮᱞᱮᱞ ᱗ ᱟᱨ ᱕, ᱵᱟᱨᱭᱟ ᱛᱮ
ᱦᱟᱴᱟᱧᱚᱜᱼᱟ, ᱮᱱᱠᱷᱟᱱ ᱟᱨ ᱚᱠᱟ ᱛᱮ ᱮᱞ ᱛᱮ
ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ?
(ᱟ) ᱡᱩᱫᱤ ᱢᱤᱫᱴᱟᱹᱝ ᱮᱞᱮᱞ ᱖᱖ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ,
ᱮᱱᱠᱷᱟᱱ ᱮᱴᱟᱜ ᱚᱠᱟᱠᱚ ᱮᱞᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ?

᱘. ᱞᱟᱛᱟᱨ ᱨᱮ ᱚᱞᱮᱱ ᱮᱞᱮᱞ ᱠᱚᱨᱮ ᱛᱟᱹᱨᱤᱢ.ᱜ ᱥᱮᱞᱮᱫ
ᱞᱮᱠᱷᱟᱱ ᱥᱮᱞᱮᱫ ᱚᱨᱡᱚ ᱖ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ?

᱙. ᱢᱚᱲᱟ ᱮᱞᱮᱞ ᱠᱚᱨᱮ ᱛᱟᱹᱨᱤᱢ.ᱜ ᱵᱷᱩᱨᱜᱮᱜ ᱞᱮᱠᱷᱟᱱ ᱵᱷᱩᱨᱜᱮᱜ
ᱚᱨᱡᱚ ᱙ ᱛᱮ ᱦᱟᱴᱟᱧᱚᱜᱼᱟ ।

ᱥᱟᱫᱷᱟᱨᱚᱱ ᱜᱩᱬᱤᱛᱚᱠ. ᱟᱨ ᱞ.ᱥᱟ.ᱜᱩ ᱜᱩᱬᱤᱛᱚᱠ.

ᱥᱟᱫᱷᱟᱨᱚᱱ ᱜᱩᱬᱤᱛᱚᱠ. — ᱵᱟᱹᱲᱛᱤ ᱮᱞ ᱠᱚ ᱨᱮᱱᱟᱜ ᱜᱩᱬᱤᱛᱚᱠ ᱠᱚ ᱢᱩᱫᱽ ᱜᱩᱬᱤᱛᱚᱠ ᱠᱟᱱ ᱥᱟ.ᱡᱷ ᱠᱮ ᱢᱤᱫ ᱜᱩᱬᱤᱛᱚᱠ ᱢᱤᱫ ᱠᱮ ᱫᱚᱥᱟᱨ ᱦᱚᱛᱮ ᱛᱟᱭᱚᱢ ᱡᱩᱫᱤ ᱥᱟᱫᱷᱟᱨᱚᱱ ᱜᱩᱬᱤᱛᱚᱠ ᱵᱟᱝ ᱥᱟᱱᱟᱢ ᱦᱩᱭᱩᱜ ᱾ ᱡᱮᱞᱮᱠᱟ —

᱓ ᱨᱮᱭᱟᱜ ᱜᱩᱬᱤᱛᱚᱠ ᱠᱚ ᱦᱩᱭᱩᱜ — ᱓,᱖,᱙,᱑᱒,᱑᱕,᱑᱘,᱒᱑, ...

᱔ ᱨᱮᱭᱟᱜ ᱜᱩᱬᱤᱛᱚᱠ ᱠᱚ ᱦᱩᱭᱩᱜ — ᱔,᱘,᱑᱒,᱑᱖,᱒᱐,᱒᱔,...

᱓ ᱟᱨ ᱔ ᱨᱮᱱᱟᱜ ᱥᱟᱫᱷᱟᱨᱚᱱ ᱜᱩᱬᱤᱛᱚᱠ ᱦᱩᱭᱩᱜ — ᱑᱒, ᱒᱔, ... ᱛᱟᱦᱮᱸᱱᱟ ᱾

ᱞ.ᱥᱟ.ᱜᱩ ᱜᱩᱬᱤᱛᱚᱠ. — ᱥᱟᱵ ᱠᱚᱢ ᱥᱟᱫᱷᱟᱨᱚᱱ ᱨᱮᱭᱟᱜ ᱞ.ᱥᱟ ᱜᱩᱬᱤᱛᱚᱠ. ᱢᱮᱱᱟ ᱢᱩᱫᱽ ᱦᱩᱭᱩᱜ ᱾ ᱡᱮᱞᱮᱠᱟ — ᱥᱟᱵ ᱥᱟᱫᱷᱟᱨᱚᱱ — ᱖᱐ ᱨᱮᱭᱟᱜ ᱜᱩᱬᱤᱛᱚᱠ. ᱵᱟᱝ ᱢᱩᱫᱽ ᱾

(᱑) ᱒ x ᱓᱐ (᱒) ᱓ x ᱒᱐ (᱓) ᱔ x ᱑᱕

(᱔) ᱕ x ᱑᱒ (᱕) ᱖ x ᱑᱐ (᱖) ᱒ x ᱒ x ᱓ x ᱕

ᱱᱚᱣᱟ ᱦᱩᱭ ᱢᱩᱫᱽ ᱵᱟᱹᱲᱛᱤ. ᱵᱟᱹᱲᱛᱤ. ᱜᱩᱬᱤᱛᱚᱠ. ᱦᱩᱭ ᱦᱩᱭᱩᱜ ᱾ ᱱᱚᱶᱟ (᱑), (᱒) ᱟᱨ (᱓) ᱨᱮᱭᱟᱜ ᱥᱟᱫᱷᱟᱨᱚᱱ ᱜᱩᱬᱤᱛᱚᱠ. ᱦᱩᱭᱩᱜ ᱞ.ᱥᱟ.ᱜᱩ ᱜᱩᱬᱤᱛᱚᱠ. ᱦᱩᱭᱩᱜ ᱟᱨ ᱡᱷᱚᱛᱚ ᱜᱩᱬᱤᱛᱚᱠ. ᱦᱩᱭᱩᱜ ᱥᱟᱫᱷᱟᱨᱚᱱ ᱜᱩᱬᱤᱛᱚᱠ. ᱦᱩᱭᱩᱜ ᱦᱩᱭ ᱾

ᱡᱟ.ᱨᱠᱟ.

ᱠᱩ:— ᱔᱒᱐ ᱨᱮᱭᱟᱜ ᱞ.ᱥᱟ.ᱜᱩ ᱜᱩᱬᱤᱛᱚᱠ. ᱦᱩᱭ ᱢᱩᱫᱽ ᱢᱮ ᱾

ᱯᱟ.:—᱔᱒᱐ ᱨᱮᱱᱟᱜ ᱞ.ᱥᱟ.ᱜᱩ ᱜᱩᱬᱤᱛᱚᱠ. ᱦᱩᱭᱩᱜ —

$$\begin{array}{r|l} ᱒ & ᱔᱒᱐ \\ ᱒ & ᱒᱑᱐ \\ ᱓ & ᱑᱐᱕ \\ ᱕ & ᱓᱕ \\ & ᱗ \end{array}$$

᱔᱒᱐ = ᱒ x ᱒ x ᱓ x ᱕ x ᱗

ᱢᱟᱨᱟᱝ ᱢᱟᱞᱚᱮ ᱥᱟᱫᱟᱞᱠᱤᱟ. (ᱢᱟᱢᱟᱥᱟ) –

ᱫᱟᱨᱮᱤᱟ ᱟᱨ ᱫᱟᱝᱱᱡᱟᱮ ᱫᱟᱨᱮᱤᱟ ᱱᱡᱫᱮ ᱫᱟ.ᱡᱚᱠ ᱢᱟᱨᱟᱝ ᱢᱟᱞᱚᱮ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱟᱨᱫᱟᱝ ᱢᱟᱢᱟᱥᱟ ᱩᱫ ᱣᱟᱣᱟ ᱯᱮ ᱣᱫᱚᱫ ᱮᱯᱮᱯ ᱨᱠᱮᱠᱣ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱢᱮᱮᱢᱮ ᱢᱟᱞᱚᱮ ᱥᱟᱫᱟᱞᱠᱤᱟ.ᱤ ᱣᱥᱤ ᱱᱫᱥ-ᱢᱟ ᱟᱨ ᱥᱮᱱᱥ ᱣᱫᱚᱫ ᱱᱡᱫᱮ ᱢᱟᱨᱟᱝ ᱱᱫᱥ-ᱢᱟ ।

ᱣᱮᱯᱮᱱ – ᱑᱒ ᱟᱨ ᱑᱖ ᱨᱮ
᱑᱒ ᱨᱮᱤᱟᱥ ᱥᱟᱫᱟᱞᱠᱤᱟ. – ᱑, ᱒, ᱓, ᱔, ᱖, ᱑᱒
᱑᱖ ᱨᱮᱤᱟᱥ ᱥᱟᱫᱟᱞᱠᱤᱟ. – ᱑, ᱒, ᱔, ᱘, ᱑᱖

ᱮᱫᱠᱮ ᱢᱟᱞᱚᱮ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱱᱫᱩᱫ, ᱑, ᱒, ᱔ । ᱮᱥᱱᱥ ᱢᱟ.ᱩ ᱨᱮ ᱔ ᱩᱫ ᱣᱫᱚᱫ ᱱᱡᱫᱮ ᱢᱟᱨᱟᱝ ᱢᱟᱞᱚᱮ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱱᱟᱮᱟᱤ । ᱮᱮᱱᱡᱟᱮ ᱑᱒ ᱟᱨ ᱑᱖ ᱨᱮᱮᱟᱥ ᱢᱟᱢᱟᱥᱟ ᱩᱫ ᱔ ᱱᱟᱮᱟᱤ ।

❋ ᱢᱟᱢᱟᱥᱟ ᱨᱮ ᱟ.ᱚᱟ.ᱩᱫ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱫᱠᱫᱱ ᱨᱮᱮᱟᱥ ᱚᱫᱣᱫᱨ ᱩᱫ ᱯᱮ ᱯᱮᱱᱟᱮ ᱩᱡᱟᱯ ᱨᱮ ᱣᱟ.ᱠᱠᱩ ᱢᱮᱮᱟᱥ-ᱟ ।

ᱩᱡᱟᱯ ᱑ – ᱮᱢᱱᱟᱥ ᱮᱯᱮᱯ ᱱᱫ ᱨᱮᱤᱟᱥ ᱟ.ᱚᱟ.ᱩᱫ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱫᱠᱫᱱ ।

ᱩᱡᱟᱯ ᱒ – ᱣᱫᱚᱫ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱢᱟ.ᱩᱫ ᱱᱡᱫᱮ ᱢᱟᱞᱚᱮ ᱟ.ᱚᱟ.ᱩ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱱᱫ ᱫᱟᱯᱡᱟᱫ ᱫᱠᱫᱱ ।

ᱩᱡᱟᱯ ᱓ – ᱠᱟᱢ ᱱᱮᱩ ᱢᱟᱞᱚᱮ ᱥᱟᱫᱟᱞᱠᱤᱟ. ᱱᱫ ᱨᱮᱤᱟ ᱥᱟᱫᱟᱞ ᱫᱨᱣᱫ ᱥᱮ ᱢᱟᱢᱟᱥᱟ ।

ᱩᱟ.ᱤᱱᱟ ᱑
᱒᱔ ᱟᱨ ᱔᱐ ᱨᱮᱮᱟᱥ ᱢᱟᱢᱟᱥᱟ ᱫᱠᱫᱱ ᱯᱮ ।

ᱠᱫᱯᱣᱮ – ᱩᱡᱟᱯ ᱑ – ᱒᱔ = ᱒ x ᱒ x ᱒ x ᱓
᱔᱐ = ᱒ x ᱒ x ᱒ x ᱕

[illegible]

[illegible] = [illegible] x [illegible] x [illegible] = [illegible]

[illegible]

[illegible] = [illegible] x [illegible] x [illegible] x [illegible] x [illegible] x [illegible]

[illegible] = [illegible] x [illegible] x [illegible] x [illegible] x [illegible]

[illegible] = [illegible] x [illegible] x [illegible] x [illegible] x [illegible] x [illegible] x [illegible]

[illegible]

[illegible] = [illegible] x [illegible] x [illegible] = [illegible]

[illegible]

[illegible] = [illegible] x [illegible] x [illegible]

[illegible] = [illegible] x [illegible] x [illegible] x [illegible] x [illegible]

[illegible]

[illegible]

[illegible] | [illegible]	[illegible]
[illegible] | [illegible]	
[illegible] | [illegible]	
[illegible]	

[illegible] = [illegible] x [illegible] x [illegible] = [illegible]

[illegible] । [illegible] । [illegible] —

[illegible] — [illegible] ।

[illegible] — [illegible] '0' ([illegible]) [illegible] । [illegible], [illegible] ।

[illegible] — [illegible] '0' ([illegible]) [illegible] । [illegible], [illegible] । [illegible] । [illegible] ।

ଉଦାହରଣ ୨

୨୪ ଓ ୪୦ ସଂଖ୍ୟାଦ୍ୱୟର ଗ.ସା.ଗୁ. ନିର୍ଣ୍ଣୟ କର ।

ସମାଧାନ – ସୋପାନ ୧ – ୨୪)୪୦(୧

୨୪

୧୬

ସୋପାନ ୨ – ୧୬)୨୪(୧

୧୬

୮

ସୋପାନ ୩ – ୮)୧୬(୨

୧୬

୦

∴ ନିର୍ଣ୍ଣେୟ ୨୪ ଓ ୪୦ ସଂଖ୍ୟାଦ୍ୱୟର ଗ.ସା.ଗୁ. ୮ ହେଉଛି ।

❁ ତିନୋଟି ସଂଖ୍ୟାର ଗ.ସା.ଗୁ. ନିର୍ଣ୍ଣୟ କରିବା ପାଇଁ ପ୍ରଥମେ ଯେକୌଣସି ଦୁଇଟି ସଂଖ୍ୟାର ଗ.ସା.ଗୁ. ନିର୍ଣ୍ଣୟ କର । ତା'ପରେ ନିର୍ଣ୍ଣିତ ଗ.ସା.ଗୁ. ଓ ତୃତୀୟ ସଂଖ୍ୟାର ଗ.ସା.ଗୁ. ନିର୍ଣ୍ଣୟ କର । ଏହା ହିଁ ତିନୋଟି ସଂଖ୍ୟାର ଗ.ସା.ଗୁ. ହେବ ।

ଉଦାହରଣ ୩

୧୪୪, ୧୮୦ ଓ ୧୯୨ ସଂଖ୍ୟାର ଗ.ସା.ଗୁ. ନିର୍ଣ୍ଣୟ କର ।

ସମାଧାନ – ୧୪୪)୧୯୨(୧

୧୪୪

୪୮)୧୪୪(୩

୧୪୪

୦

୧୪୪ ଓ ୧୯୨ ର ଗ.ସା.ଗୁ. ୪୮ ହେଉଛି । ନିର୍ଣ୍ଣେୟ ଏବେ ୪୮ ଓ ୧୮୦ ସଂଖ୍ୟାଦ୍ୱୟର ଗ.ସା.ଗୁ. ନିର୍ଣ୍ଣୟ କରିବା ।

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

0

[illegible]

[illegible] — [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

0

∴ [illegible]

ᱦᱮᱥᱟ ᱠᱩᱠᱞᱤ

᱑. ᱖᱕᱖᱑᱐ ᱫᱚ ᱒᱒ ᱛᱮ ᱦᱟᱴᱟᱧᱚ-ᱟ ।
᱖᱕᱖᱑᱐ ᱨᱮᱱᱟ ᱵᱮᱠᱟ ᱥᱟᱨᱮᱱᱟ ᱮᱞᱮᱞ ᱚᱰᱚᱠ ᱯᱮ ᱡᱟᱦᱟᱸ ᱒᱒ ᱛᱮ ᱦᱟᱴᱟᱧᱚ-ᱟ ।

᱒. ᱑᱓᱐ ᱟᱨ ᱓᱐᱐ ᱨᱮᱱᱟᱜ ᱢᱟᱢᱟᱜᱟ ᱚᱰᱚᱠ ᱯᱮ ।

᱓. ᱥᱟᱨᱮᱱᱟ ᱠᱩᱰᱩᱨ ᱮᱞᱮᱞ ᱨᱮᱱᱟ ᱢᱟᱢᱟᱜᱟ ᱚᱰᱚᱠ ᱯᱮ ।

᱔. ᱒᱖᱔ ᱟᱨ ᱑᱐᱒᱖ ᱠᱤᱴᱤ ᱚᱠᱟ ᱢᱟᱨᱟᱝ ᱮᱞᱮᱞᱛᱮ ᱦᱟᱴᱟᱧ ᱞᱮᱠᱷᱟᱱ ᱥᱟᱨᱮᱱᱟ ᱴᱚᱨᱮ ᱦᱟᱴᱟᱧᱟ ᱖ ᱦᱩᱭᱩᱜ-ᱟ ?

᱕. ᱓᱖᱓, ᱔᱓᱑ ᱟᱨ ᱖᱔᱒ ᱮᱞᱮᱞᱠᱚ ᱚᱠᱟ ᱢᱟᱨᱟᱝ ᱮᱞᱮᱞ ᱛᱮ ᱦᱟᱴᱟᱧ ᱞᱮᱠᱷᱟᱱ ᱦᱟᱴᱟᱧᱟ ᱒, ᱑᱑ ᱟᱨ ᱑᱖ ᱦᱩᱭᱩᱜ-ᱟ ?
(ᱩᱫᱩᱜᱩᱜ – ᱓᱖᱓–᱒, ᱔᱓᱑–᱑᱑, ᱖᱔᱒–᱑᱖ ᱨᱮᱱᱟᱜ ᱢᱟᱢᱟᱜᱟ ᱚᱰᱚᱠ)

᱖. ᱥᱟᱨᱮᱱᱟ ᱥᱟ.ᱮᱦᱤ ᱨᱮ ᱢᱤᱜᱛᱩᱨᱛᱮ ᱖᱑᱐ ᱞᱤᱥᱚᱨ ᱟᱨ ᱓᱖᱐ ᱞᱤᱥᱚᱨ ᱜᱟᱜ ᱠᱟᱦᱟᱥᱚᱥ-ᱟ । ᱫᱚᱮᱨ ᱛᱤᱮᱟ.ᱜ ᱜᱟᱜ ᱠᱟᱦᱟᱥᱥ ᱥᱟ.ᱞᱤᱥ ᱛᱮ ᱠᱚᱰ ᱞᱮᱠᱷᱟᱱ ᱜᱟᱜ ᱜᱚ ᱞᱚᱜᱮᱫ ᱠᱚᱰ ᱜᱟᱮᱛᱜ-ᱟ ?

᱗. ᱓᱑᱒, ᱒᱓᱑ ᱟᱨ ᱒᱑᱓ ᱜᱚ ᱚᱠᱟ ᱢᱟᱨᱟᱝ ᱮᱞᱮᱞ ᱛᱮ ᱦᱟᱴᱟᱧ ᱞᱮᱠᱷᱟᱱᱫᱚ ᱦᱟᱴᱟᱧ ᱠᱟ ᱢᱤᱜᱛᱩᱨᱛᱮ ᱒, ᱑᱑ ᱟᱨ ᱑᱖ ᱦᱩᱭᱩᱜ-ᱟ ।

᱘. ᱢᱤᱜᱥᱟᱜ ᱡᱩᱮ ᱠᱚᱦ ᱨᱟᱯᱟᱨᱮ ᱠᱚᱢᱟᱞ ᱡᱩᱮ ᱠᱚᱦ ᱛᱮ ᱜᱚᱤᱨᱤ ᱮᱢᱚᱜ-ᱟ । ᱨᱟᱯᱟ ᱨᱮᱞᱟᱜ ᱞᱟᱦᱟ.ᱞ ᱒᱐ ᱢᱤ. ᱑᱘ ᱥᱮ. ᱢᱤ. ᱟᱨ ᱚᱥᱟᱨ ᱑᱖ ᱢᱤ. ᱘᱐ ᱥᱮ. ᱢᱤ. ᱠᱚᱟᱞ, ᱟ.ᱡᱤ ᱠᱚᱢ ᱨᱮ ᱛᱤᱮᱟ.ᱜ ᱠᱚᱟ:ᱡᱤᱱᱟ. ᱜᱚᱤᱨᱤ ᱞᱟᱜᱟᱣᱜ-ᱟ ?

᱙. ᱢᱤᱜᱥᱟᱜ ᱠᱩᱥᱨᱤ ᱨᱮᱞᱟᱜ ᱞᱟᱦᱟ.ᱞ ᱓ ᱢᱤ. ᱒᱔ ᱥᱮ. ᱢᱤ. ᱟᱨ ᱚᱥᱟᱨ ᱘ ᱢᱤ. ᱒᱖ ᱥᱮ. ᱢᱤ. ᱟᱨ ᱠᱟ:ᱛᱟ ᱨᱮᱞᱟᱜ ᱩᱥᱩᱞ

᱔ ᱢᱤ. ᱕᱐ ᱥᱮ. ᱢᱤ. । ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱢᱟᱨᱟᱝ ᱛᱤᱱᱟᱹᱜ ᱡᱷᱟᱹᱞ ᱵᱷᱤᱛᱟᱹ ᱛᱮ ᱡᱚᱠᱷᱟ ᱞᱮᱠᱷᱟᱱ ᱱᱚᱣᱟ ᱡᱷᱟᱹᱞ, ᱚᱥᱟᱨ ᱟᱨ ᱩᱥᱩᱞ ᱢᱤᱫ ᱫᱷᱟᱣ ᱛᱮ ᱡᱚᱠᱷᱟ ᱜᱟᱱᱚᱜ-ᱟ ?

ᱦᱩᱰᱤᱧ ᱢᱟᱬᱛᱮ ᱜᱟᱵᱟᱬᱮᱛ (ᱦᱩᱢᱟᱜᱟ) –

ᱵᱟᱨᱮᱭᱟ ᱟᱨ ᱵᱟᱝᱠᱷᱟᱱ ᱵᱟᱨᱮᱭᱟ ᱠᱷᱚᱱ ᱰᱷᱮᱨ ᱮᱞᱮᱞ ᱨᱮᱱᱟ ᱦᱩᱰᱤᱧ ᱢᱟᱬᱛᱮ ᱜᱟᱵᱟᱬᱮᱛ ᱚᱰᱚᱠ (ᱦᱩᱢᱟᱜᱟ) ᱫᱚ ᱚᱱᱟᱠᱚ ᱮᱞᱮᱞ ᱨᱮᱭᱟᱜ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱦᱩᱰᱤᱧ ᱢᱟᱬᱛᱮ ᱜᱟᱵᱟᱬᱮᱛ ᱠᱟᱱᱟ । ᱡᱮᱞᱮᱠᱟ –

᱘ ᱨᱮᱭᱟ ᱜᱟᱵᱟᱬᱮᱛ – ᱘, ᱑᱖, ᱒᱔, ...

ᱟᱨ ᱑᱒ ᱨᱮᱭᱟᱜ ᱜᱟᱵᱟᱬᱮᱛ – ᱑᱒, ᱒᱔, ᱓᱖, ...

ᱱᱚᱸᱰᱮ ᱢᱟᱬᱛᱮ ᱜᱟᱵᱟᱬᱮᱛ ᱫᱚ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ ᱒᱔, ᱔᱘, ... । ᱱᱚᱸᱰᱮ ᱡᱚᱛᱚ ᱠᱷᱚᱱ ᱦᱩᱰᱤᱧ ᱜᱟᱵᱟᱬᱮᱛ ᱫᱚ ᱒᱔ । ᱚᱱᱟᱛᱮ ᱘ ᱟᱨ ᱑᱒ ᱨᱮᱭᱟ ᱦᱩᱢᱟᱜᱟ ᱫᱚ ᱒᱔ ᱠᱟᱱᱟ । ᱦᱩᱢᱟᱜᱟ ᱚᱰᱚᱠ ᱞᱟᱹᱜᱤᱫ ᱫᱚ ᱵᱟᱹᱲᱛᱤ ᱠᱟᱭᱛᱮ ᱵᱟᱨ ᱞᱮᱠᱟᱛᱮ ᱚᱰᱚᱠ ᱜᱟᱱᱚᱜ-ᱟ । ᱚᱱᱟ ᱫᱚ ᱫᱟᱹᱭᱠᱟᱹ ᱵᱚ ᱧᱮᱞᱟ ।

ᱫᱟᱹᱭᱠᱟᱹ ᱑ – ᱦᱩᱢᱟᱜᱟ ᱵᱚ ᱚᱰᱚᱠᱟ –

(ᱚ) ᱒᱔ ᱟᱨ ᱔᱐

(ᱟ) ᱔᱐, ᱔᱘, ᱗᱕

ᱥᱚᱞᱦᱮ – (ᱚ) ᱱᱚᱸᱰᱮ ᱒᱔ = ᱒ x ᱒ x ᱒ x ᱓

ᱟᱨ ᱔᱐ = ᱒ x ᱒ x ᱒ x ᱕

ᱱᱚᱸᱰᱮ ᱟᱹᱛᱟᱹᱫᱨ ᱜᱟᱵᱟᱬᱤᱭᱟᱹ ᱫᱚ ᱒, ᱓, ᱕ ᱠᱟᱱᱟ । ᱜᱟᱵᱟᱬᱤᱭᱟᱹ ᱒ ᱫᱚ ᱯᱮ ᱫᱷᱟᱣ ᱜᱟᱵᱟᱬ ᱟᱠᱟᱱᱟ, ᱓ ᱟᱨ ᱕ ᱫᱚ ᱢᱤᱫ ᱫᱷᱟᱣ ᱜᱮ ᱜᱟᱵᱟᱬ ᱟᱠᱟᱱᱟ ।

ᱮᱱᱠᱷᱟᱱ ᱦᱩᱢᱟᱜᱟ = ᱒ x ᱒ x ᱒ x ᱓ x ᱕ = ᱑᱒᱐

(ᱟ) ᱱᱚᱸᱰᱮ ᱔᱐ = ᱒ x ᱒ x ᱒ x ᱕

᱔᱘ = ᱒ x ᱒ x ᱒ x ᱒ x ᱓

᱗᱕ = ᱓ x ᱕ x ᱕

ᱱᱚᱸᱰᱮ ᱟᱹᱛᱟᱹᱫᱨ ᱜᱟᱵᱟᱬᱤᱭᱟᱹ ᱫᱚ ᱒, ᱓ ᱟᱨ ᱕ ।

ᱮᱱᱠᱷᱟᱱ – ᱒ x ᱒ x ᱒ x ᱒ x ᱓ x ᱕ x ᱕ = ᱑᱒᱐᱐

[illegible] —

[illegible]

[illegible] — [illegible]

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
	[illegible]

∴ [illegible] =

[illegible] x [illegible] x [illegible] x [illegible] x [illegible] x [illegible]

= [illegible]

[illegible] —

[illegible] ?

[illegible] — [illegible] =

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
	[illegible]

∴ [illegible] =

[illegible] x [illegible] x [illegible] x [illegible] x [illegible] x [illegible]

= [illegible]

[illegible] = [illegible]+[illegible]=[illegible]

[illegible]

[illegible]

* [illegible] ।

* [illegible] ।

* [illegible] ।

* [illegible], [illegible] ।

* [illegible] ।

* [illegible] x [illegible] = [illegible]

[illegible]. [illegible] —

[illegible] । [illegible], [illegible] ?

[illegible] — [illegible] x [illegible]

= [illegible] ∴ [illegible] = [illegible]

∴ ᱮᱛᱚᱦᱚᱵ ᱮᱞᱮᱞ × ᱫᱚᱥᱟᱨ ᱮᱞᱮᱞ = ᱑᱔᱐᱐
ᱱᱚᱸᱰᱮ ᱮᱛᱚᱦᱚᱵ ᱮᱞᱮᱞ ᱓᱕ ᱠᱟᱱᱟᱭ ᱾
∴ ᱓᱕ × ᱫᱚᱥᱟᱨ ᱮᱞᱮᱞ = ᱑᱔᱐᱐÷ ᱓᱕=᱔᱐ ᱾

ᱫᱟᱹᱭᱠᱟ. ᱒ –

ᱡᱟᱥᱮᱭᱟ ᱮᱞᱮᱞ ᱥᱮᱭᱟᱜ ᱜᱟᱢᱟ ᱫᱚ ᱓᱐᱐᱐ ᱾ ᱡᱩᱫᱤ ᱮᱞᱮᱞ ᱠᱤᱱᱟᱜ ᱯᱟᱯᱟᱜᱟ ᱑᱐ ᱦᱩᱭᱩᱜ-ᱟ, ᱮᱱᱠᱷᱟᱱ ᱦᱩᱯᱟᱜᱟ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

ᱥᱚᱞᱮ – ᱦᱩᱯᱟᱜᱟ × ᱯᱟᱯᱟᱜᱟ = ᱮᱞᱮᱞ ᱠᱤᱱᱟᱜ ᱜᱟᱢᱟ
ᱱᱚᱸᱰᱮ ᱮᱞᱮᱞ ᱠᱤᱱᱟᱜ ᱯᱟᱯᱟᱜᱟ = ᱑᱐
ᱮᱞᱮᱞ ᱠᱤᱱᱟᱜ ᱜᱟᱢᱟ = ᱓᱐᱐᱐
∴ ᱑᱐ × ᱦᱩᱯᱟᱜᱟ = ᱓᱐᱐᱐
ᱮᱱᱠᱷᱟᱱ ᱦᱩᱯᱟᱜᱟ = ᱓᱐᱐᱐÷ ᱑᱐=᱓᱐᱐ ᱾

ᱦᱮᱡᱟ ᱠᱩᱠᱞᱤ

᱑. ᱦᱩᱯᱟᱜᱟ ᱚᱰᱚᱠ ᱢᱮ ᱾
(ᱚ) ᱒᱕, ᱑᱕᱐, ᱕᱐᱐ (ᱟ) ᱒᱔, ᱑᱔᱔, ᱒᱑᱖
(ᱤ) ᱑᱐, ᱓᱕, ᱔᱒, ᱖᱐ (ᱩ) ᱒᱔, ᱔᱒, ᱖᱐, ᱘᱘

᱒. ᱥᱚᱯᱟᱱ ᱦᱩᱮᱩᱰ ᱛᱮ ᱟᱹᱥᱩᱨ ᱢᱮ ᱾
(ᱚ) $\frac{᱕}{᱓᱗}$, $\frac{᱖}{᱖᱕}$, $\frac{᱒}{᱗᱓}$ (ᱟ) ᱓ $\frac{᱒}{᱑᱐᱕}$, $\frac{᱒}{᱑᱒᱐}$, $\frac{᱑᱐᱗}{᱑᱐᱕}$

᱓. ᱛᱤᱱ ᱦᱩᱰᱤᱧ ᱮᱞᱮᱞ ᱒᱕, ᱓᱐, ᱓᱕ ᱛᱮ ᱦᱟᱴᱟᱝ ᱞᱮᱠᱷᱟᱱ ᱜᱟᱴᱟᱜᱮ ᱦᱟᱴᱟᱝᱥᱟ ᱑᱐ ᱦᱩᱭᱩᱜ-ᱟ ?

᱔. ᱛᱤᱱ ᱦᱩᱰᱤᱧ ᱮᱞᱮᱞ ᱢᱮ ᱒ ᱥᱮᱞᱮᱫ ᱞᱮᱠᱷᱟᱱ ᱥᱮᱞᱮᱫ ᱛᱚᱛᱮᱫᱛ ᱓᱖, ᱑᱑᱒, ᱑᱖᱐ ᱛᱮ ᱦᱟᱴᱟᱝᱚᱜ-ᱟ ?

᱕. (ᱚ) ᱑᱐᱐᱐᱐ ᱢᱮᱱᱟᱜ ᱛᱤᱱ ᱥᱩᱢ ᱮᱞᱮᱞ ᱒, ᱓, ᱔, ᱕, ᱖ ᱛᱮ ᱦᱟᱴᱟᱝᱚᱜ-ᱟ ?
(ᱟ) ᱑᱐᱐᱐᱐᱐ ᱠᱷᱚᱱ ᱯᱟᱢᱟᱢ ᱛᱤᱱ ᱮᱞᱮᱞ ᱘, ᱑᱕ ᱟᱨ ᱒᱘ ᱛᱮ ᱦᱟᱴᱟᱝᱚᱜ-ᱟ ?

[illegible] –

(1) [illegible]

[illegible] = [illegible]

[illegible] = [illegible]

[illegible]

[illegible] x [illegible] = [illegible]

[illegible], [illegible] x [illegible] = [illegible]

(2) [illegible] ।

[illegible] = [illegible]

[illegible] = [illegible]

∴ [illegible] x [illegible] = [illegible] x [illegible] = [illegible]

[illegible], [illegible] x [illegible] = [illegible]

[illegible],

[illegible] ।

[illegible] ।
[illegible] –

$$[illegible] = \frac{[illegible]}{[illegible]}$$

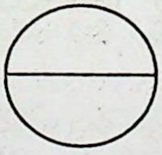
$$[illegible] = \frac{[illegible]}{[illegible]}$$

[illegible]

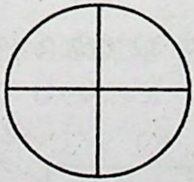
1. [illegible] = [illegible]
   - [illegible]
   - [illegible]
   - [illegible]
   - [illegible]
   - [illegible]
2. [illegible] ?
3. [illegible] ?
4. [illegible] ?
5. [illegible] ?
6. [illegible]

[illegible]

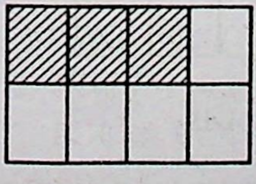
[illegible]



[illegible]



[illegible]

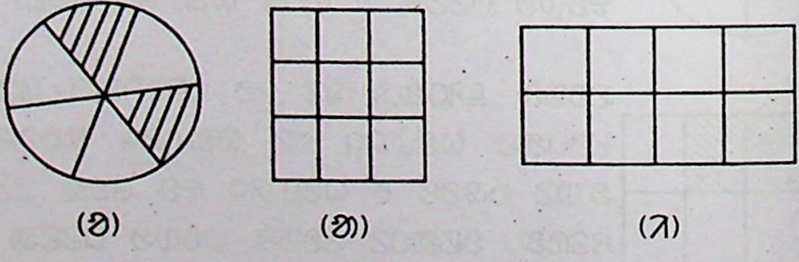


[illegible]

[illegible]

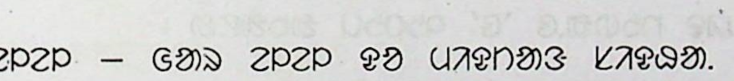
[illegible]

[illegible]



[illegible]

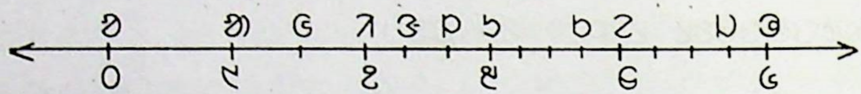
[illegible]



ᱱᱚᱣᱟ ᱜᱟᱨ ᱮᱞᱮᱞ ᱨᱮ $\frac{᱑}{᱒}$ ᱵᱚ ᱧᱮᱞᱟ ᱾ $\frac{᱑}{᱒}$ ᱨᱟᱯᱟᱥᱜᱚᱲ ᱮᱞᱮᱞ ᱫᱚ ᱵᱟᱨᱮᱭᱟ ᱴᱤᱵᱟᱹᱜ ᱨᱮᱭᱟᱜ ᱛᱟᱞᱟ ᱢᱟᱞᱟ ᱮᱞᱮᱞ ᱠᱟᱱᱟ ᱾

ᱜᱟᱨ ᱮᱞᱮᱞ ᱨᱮ ᱮᱴᱟᱜ ᱨᱟᱯᱟᱥᱜᱚᱲ

ᱱᱚᱣᱟ ᱜᱟᱨ ᱮᱞᱮᱞ ᱨᱮᱵᱚ ᱧᱮᱞᱟ ᱚᱠᱟ ᱞᱮᱠᱟ ᱮᱴᱟᱜ ᱨᱟᱯᱟᱥᱜᱚᱲ ᱠᱚ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ ᱾



ᱱᱚᱣᱟ ᱜᱟᱨ ᱮᱞᱮᱞ ᱨᱮ ᱐, ᱑, ᱒, ᱓, ᱔, ᱕ ᱴᱩᱵᱟᱹᱜ ᱟᱛᱮ ᱪᱤᱱᱦᱟᱹ. ᱟᱠᱟᱱᱟ ᱟᱨ ᱚᱱᱟ ᱠᱚ ᱢᱤᱫ ᱛᱩᱞᱤᱛᱮ ᱚ, ᱟ, ᱤ, ᱩ, ᱮ, ᱳ ᱞᱮᱠᱟᱴᱮ ᱧᱩᱛᱩᱢ ᱟᱠᱟᱱᱟ ᱾

'ᱟ' ᱠᱷᱚᱱ 'ᱤ' ᱫᱷᱟᱹᱵᱤᱡ ᱥᱚᱢᱟᱱ ᱵᱟᱨ ᱦᱟᱹᱴᱤᱧ ᱨᱮ ᱢᱤᱫ ᱴᱩᱵᱟᱹᱜ 'ᱜ' ᱧᱩᱛᱩᱢ ᱟᱠᱟᱱᱟ ᱾

ᱚᱱᱟᱠᱟᱜᱮ 'ᱤ' ᱠᱷᱚᱱ 'ᱩ' ᱫᱷᱟᱹᱵᱤᱡ ᱥᱚᱢᱟᱱ ᱛᱮ ᱓ ᱦᱟᱹᱴᱤᱧ ᱟᱠᱟᱱᱟ ᱟᱨ ᱚᱱᱟ ᱨᱮᱭᱟᱜ ᱵᱟᱨᱮᱭᱟ ᱴᱩᱵᱟᱹᱜ ᱫᱚ 'ᱝ' ᱟᱨ 'ᱞ' ᱧᱩᱛᱩᱢ ᱟᱠᱟᱱᱟ ᱾

ᱚᱱᱠᱟᱜᱮ 'ᱩ' ᱠᱷᱚᱱ 'ᱮ' ᱫᱷᱟᱹᱵᱤᱡ ᱛᱮ ᱥᱚᱢᱟᱱ ᱔ ᱦᱟᱹᱴᱤᱧ ᱨᱮ ᱦᱟᱹᱴᱤᱧ ᱟᱠᱟᱱᱟ ᱟᱨ ᱚᱱᱟ ᱨᱮᱭᱟᱜ ᱓ ᱭᱟᱜ ᱴᱩᱵᱟᱹᱜ ᱫᱚ 'ᱠ' ᱧᱩᱛᱩᱢ ᱟᱠᱟᱱᱟ ᱾

ᱟᱨᱦᱚᱸ ᱚᱱᱠᱟ ᱜᱮ 'ᱮ' ᱠᱷᱚᱱ 'ᱳ' ᱫᱷᱟᱹᱵᱤᱡ ᱛᱮ ᱕ ᱜᱚᱴᱟᱝ ᱥᱚᱢᱟᱱ ᱦᱟᱹᱴᱤᱧ ᱟᱠᱟᱱᱟ ᱚᱱᱟ ᱨᱮᱭᱟᱜ ᱔ ᱱᱟᱜ ᱴᱩᱵᱟᱹᱜ ᱫᱚ 'ᱡ' ᱧᱩᱛᱩᱢ ᱛᱮ ᱧᱩᱛᱩᱢ ᱟᱠᱟᱱᱟ ᱾

ᱱᱤᱛ ᱫᱚ ᱵᱮᱞᱟ 'ᱚ' ᱠᱷᱚᱨᱟᱜ 'ᱜ' ᱥᱷᱟ.ᱫᱤᱧ ᱡᱟ:ᱜᱤᱵ

ᱥᱚ = ᱚ ᱟ + ᱟ ᱜ

= ᱑ ᱡᱚᱝ + ᱑ ᱡᱚᱝ ᱥᱮᱨᱟᱜ $\frac{᱑}{᱒}$ ᱚ.ᱜᱚᱡ =

= ᱑ + $\frac{᱑}{᱒}$ = ᱑$\frac{᱑}{᱒}$

ᱮᱨᱠᱷᱟᱨ 'ᱜ' ᱥᱤᱨᱫᱟ. ᱧᱷᱮᱨ ᱥᱚ ᱑$\frac{᱑}{᱒}$

(᱑ ᱡᱟ.ᱥᱥᱵᱩ ᱑ ᱫᱟ.ᱧᱤᱵ ᱒)

'ᱚ' ᱠᱷᱚᱚᱨ 'ᱝ' ᱥᱷᱟ.ᱥᱤᱧ ᱡᱟ:ᱜᱤᱵ ᱫᱚ ᱵᱮᱞᱟ –

= ᱟᱤ + ᱤᱝ

= ᱒ ᱡᱚᱝ + ᱑ ᱡᱚᱝ ᱥᱮᱨᱟᱜ $\frac{᱑}{᱔}$ ᱚ.ᱜᱚᱡ =

= ᱒ + $\frac{᱑}{᱔}$ = ᱒$\frac{᱑}{᱔}$

ᱮᱨᱠᱷᱟᱨ ᱡᱟ:ᱜᱤᱵ ᱥᱚ ᱒$\frac{᱑}{᱔}$

(᱒ ᱡᱟ.ᱥᱥᱵᱩ ᱑ ᱫᱟ.ᱧᱤᱵ ᱔)

ᱟᱥᱫᱚ 'ᱚ' ᱠᱷᱚᱚᱨ 'ᱞ' ᱥᱷᱟ.ᱥᱤᱧ ᱡᱟ:ᱜᱤᱵ ᱫᱚ ᱵᱮᱞᱟ

= ᱟᱤ + ᱤᱞ

= ᱒ ᱡᱚᱝ + ᱑ ᱡᱚᱝ ᱥᱮᱨᱟᱜ $\frac{᱒}{᱔}$ ᱚ.ᱜᱚᱡ =

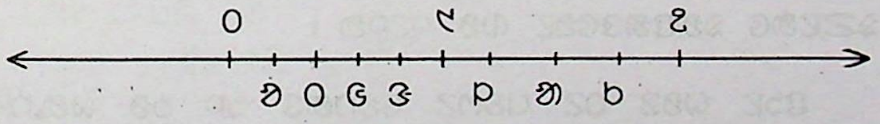
= ᱒ + $\frac{᱒}{᱔}$ = ᱒$\frac{᱑}{᱔}$ =

ᱮᱨᱠᱷᱟᱨ ᱡᱟ:ᱜᱤᱵ ᱥᱚ ᱒$\frac{᱒}{᱔}$

(᱒ ᱡᱟ.ᱥᱥᱵᱩ ᱒ ᱫᱟ.ᱧᱤᱵ ᱔)

ᱱᱤᱛ ᱫᱚ ᱞᱟ.ᱨ ᱠᱮᱨᱟ 'ᱚ' ᱠᱷᱚᱚᱨ 'ᱠ' ᱟᱥ 'ᱧ' ᱥᱮᱨᱟᱜ ᱡᱟ:ᱜᱤᱵ ᱛᱤᱨᱟ.ᱜ ?

ᱫᱮᱩᱟ ᱠᱥᱠᱞᱤ

᱑. 

ᱨᱚᱩᱟ ᱜᱟᱥ ᱮᱞᱮᱞ ᱥᱮ '᱐' ᱠᱷᱚᱚᱨ '᱑' ᱧᱥᱫᱟ.ᱜ ᱥᱷᱟ.ᱥᱤᱧ ᱡᱚᱩᱟᱨ ᱛᱮ ᱜ ᱫᱟ.ᱧᱤᱵ ᱥᱮ ᱫᱟ.ᱧᱤᱵ ᱟᱠᱟᱨᱟ

ᱟᱨ ᱚᱱᱟ ᱨᱮᱱᱟᱜ ᱔ ᱦᱟᱹ. ᱴᱩᱥᱟᱹᱜ ᱫᱚ ᱚ, ᱛ, ᱜ, ᱝ ᱧᱩᱛᱩᱢᱟᱠᱟᱮᱱᱟ ᱟᱨ ᱑ ᱠᱷᱚᱱ ᱒ ᱴᱩᱥᱟᱹᱜ ᱫᱷᱟᱹᱵᱤᱡ ᱛᱮ ᱥᱚᱢᱟᱱ ᱔ ᱦᱟᱹᱴᱤᱧ ᱨᱮ ᱦᱟᱹᱴᱤᱧ ᱟᱠᱟᱮᱱᱟ ᱟᱨ ᱚᱱᱟ ᱕ ᱦᱟᱹ ᱴᱩᱥᱟᱹᱜ ᱫᱚ ᱞ, ᱟ, ᱠ ᱢᱮᱱᱛᱮ ᱧᱩᱛᱩᱢ ᱟᱠᱟᱮᱱᱟ । ᱮᱱᱠᱷᱟᱱ ᱚᱠᱟ ᱴᱩᱥᱟᱹᱜ ᱫᱚ ᱚᱠᱟ ᱥᱚᱝ ᱛᱮᱫ ᱮ ᱩᱫᱩᱜᱮᱜ-ᱟ ?

(᱑) ᱚ ᱴᱩᱥᱟᱹᱜ ᱫᱚ .... ।
(᱒) ᱜ ᱴᱩᱥᱟᱹᱜ ᱫᱚ .... ।
(᱓) ᱛ ᱴᱩᱥᱟᱹᱜ ᱫᱚ .... ।
(᱔) ᱝ ᱴᱩᱥᱟᱹᱜ ᱫᱚ .... ।
(᱕) ᱞ ᱴᱩᱥᱟᱹᱜ ᱫᱚ .... ।
(᱖) ᱟ ᱴᱩᱥᱟᱹᱜ ᱫᱚ .... ।
(᱗) ᱠ ᱴᱩᱥᱟᱹᱜ ᱫᱚ .... ।

᱒. ᱞᱟᱛᱟᱨ ᱨᱮ ᱚᱞ ᱮᱞᱮᱞ ᱠᱚ ᱜᱟᱨ ᱮᱞᱮᱞ ᱨᱮ ᱚᱞ ᱠᱚᱯᱮ ।

(ᱚ) $\frac{᱒}{᱓}$ (ᱟ) ᱑ $\frac{᱒}{᱓}$ (ᱤ) ᱒ $\frac{᱒}{᱓}$ (ᱩ) ᱓ $\frac{᱒}{᱓}$ (ᱮ) ᱔ $\frac{᱒}{᱓}$

᱓. (ᱚ) ᱯᱮᱛᱟᱱ ᱯᱤᱛᱟᱹᱨ ᱨᱮ ᱑ $\frac{᱒}{᱔}$ ᱫᱚ ᱚᱠᱟ ᱴᱩᱥᱟᱹᱜ ?

(ᱟ) ᱯᱮᱛᱟᱱ ᱯᱤᱨᱟᱹᱨ ᱨᱮ $\frac{᱒}{᱕}$ ᱯᱚ ᱚᱠᱟ ᱴᱩᱥᱟᱹᱜ ?

ᱮᱞ ᱟᱨ ᱡᱤᱱᱤᱞ ᱯᱮᱛᱟᱱ ᱨᱮ ᱨᱟᱯᱟᱝᱜᱚᱞ

ᱜᱟᱨ ᱨᱟᱯᱟᱝᱜᱚᱞ ᱨᱮ ᱡᱟᱦᱟᱸ ᱞᱮᱠᱟ ᱦᱟᱹᱴᱤᱧ ᱞᱮᱱᱟ ᱚᱱᱟᱠᱟ ᱜᱮ ᱡᱤᱱᱤᱞ ᱨᱮᱦᱚᱸ ᱦᱟᱹᱴᱤᱧ ᱜᱟᱱᱚᱜ-ᱟ ᱟᱨ ᱚᱱᱟ ᱨᱮᱱᱟᱜ ᱨᱟᱯᱟᱝᱜᱚᱞ ᱫᱚ ᱧᱮᱞᱟ ।

ᱯᱩᱮ ᱦᱚᱯ ᱛᱮ ᱢᱚᱥᱮ ᱜᱚᱴᱟᱝ ᱩᱞ ᱠᱚ ᱦᱟᱹᱴᱤᱧᱟ ᱮᱱᱠᱷᱟᱱ ᱢᱤ-ᱢᱤᱫ ᱦᱚᱯ ᱢᱤᱫᱴᱟᱝ ᱠᱟᱛᱮ ᱦᱟᱹᱴᱤᱧ ᱛᱟᱦᱚᱢ ᱑ ᱴᱟᱝ ᱥᱟᱯᱮᱡ ᱮᱱᱟ । ᱚᱱᱟ ᱫᱚ ᱔ ᱴᱷᱮᱮ ᱠᱚ ᱠᱮᱯᱟᱜ

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

ᱚᱥᱚᱞ ᱠᱟᱹᱢᱤ

᱑. ᱞᱟᱛᱟᱨ ᱨᱮ ᱮᱢ ᱟᱠᱟᱱ ᱵᱟᱹᱲᱛᱤ ᱦᱟᱹᱴᱤᱧᱮᱞᱠᱚ ᱢᱤᱥᱟᱹ ᱦᱟᱹᱴᱤᱧᱮᱞ ᱨᱮ ᱚᱞ ᱢᱮ ।

(ᱚ) $᱓\frac{᱒}{᱓}$ (ᱠ) $᱒\frac{᱒}{᱓}$ (ᱜ) $᱑\frac{᱗}{᱘}$

᱒. ᱞᱟᱛᱟᱨ ᱨᱮ ᱮᱢ ᱟᱠᱟᱱ ᱢᱤᱥᱟᱹ ᱦᱟᱹᱴᱤᱧᱮᱞᱠᱚ ᱵᱟᱹᱲᱛᱤ ᱦᱟᱹᱴᱤᱧᱮᱞ ᱨᱮ ᱚᱞ ᱢᱮ ।

(ᱚ) $\frac{᱑᱘}{᱕}$ (ᱠ) $\frac{᱒᱐}{᱗}$ (ᱜ) $\frac{᱒᱓}{᱘}$

᱓. ᱞᱟᱛᱟᱨ ᱨᱮ ᱮᱢ ᱟᱠᱟᱱ [illegible] ᱵᱟᱹᱲᱛᱤ ᱦᱟᱹᱴᱤᱧᱮᱞᱠᱚ ᱛᱮ ᱮᱢ [illegible] ᱢᱮ ।

(ᱚ) ᱑᱗ ÷ ᱗ (ᱠ) ᱒᱔ ÷ ᱕ (ᱜ) ᱓᱔ ÷ ᱑᱓

ᱥᱚᱢᱟᱱ ᱦᱟᱹᱴᱤᱧᱮᱞᱠᱚ

ᱥᱚᱢᱟᱱ ᱦᱟᱹᱴᱤᱧᱮᱞᱠᱚ [illegible] ᱾

$$\frac{᱑}{᱒} = \frac{᱒}{᱔} = \frac{᱑\times᱒}{᱒\times᱒}$$

[illegible] $\frac{᱑}{᱒} = \frac{᱔}{᱘} = \frac{᱑\times᱔}{᱒\times᱔}$ [illegible]

[illegible] $\frac{᱑}{᱒} = \frac{᱓}{᱖} = \frac{᱑\times᱓}{᱒\times᱓}$ [illegible]

ᱥᱚᱢᱟᱱ ᱦᱟᱹᱴᱤᱧᱮᱞᱠᱚ [illegible] ᱦᱟᱹᱴᱤᱧᱮᱞᱠᱚ [illegible] ᱾ [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

ᱢᱮᱫᱟ ᱵᱥᱵᱯᱞ

᱑. ᱯᱟᱚᱟᱹ ᱦᱮ ᱳᱯ ᱟᱵᱟᱮ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱵᱳᱦᱞᱮ ᱩᱳᱢᱮ ᱧᱳᱱᱟᱤ ᱵᱟᱚᱮ ᱠᱳᱩᱟᱮ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱳᱜᱳᱵ ᱴᱮ ।

(ᱳ) $\frac{᱒}{᱘}$ (ᱟ) $\frac{᱗}{᱘}$ (ᱞ) $\frac{᱒}{᱘}$ (ᱥ) $\frac{᱖}{᱙}$

᱒. $\frac{᱒}{᱖}$ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱦᱮᱮᱟᱧ ᱠᱳᱩᱟᱮ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱳᱜᱳᱵ ᱴᱮ, ᱡᱟᱢᱟ.ᱨᱟᱧ ᱢᱥᱮᱥᱜ ᱑ ᱢᱥᱨ ᱵᱳᱧ-ᱟ ।

᱓. $\frac{᱗᱖}{᱘᱗}$ ᱦᱮᱨᱧ ᱠᱳᱩᱟᱮ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱳᱜᱳᱵ ᱴᱮ, ᱡᱟᱢᱟ.ᱨᱟᱧ ᱢᱥᱮᱥᱜ ᱖ ᱢᱥᱨ ᱵᱳᱧ-ᱩᱟ ।

᱔. $\frac{᱒}{᱒}$ ᱦᱮᱨᱟᱧ ᱠᱳᱩᱟᱮ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱳᱜᱳᱵ ᱴᱮ, ᱡᱟᱢᱟ.ᱨᱟᱧ ᱢᱥᱮᱥᱜ ᱑᱘ ᱢᱥᱨᱵᱳᱧ-ᱩᱟ ।

᱕. $\frac{᱒}{᱘}$ ᱟᱦ $\frac{᱘}{᱙}$ ᱶᱟᱮᱟᱦ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱦᱮᱮᱟᱧ ᱢᱥᱮᱥᱜ ᱑ᱮ ᱢᱥᱨ ᱵᱟᱚᱮ ᱠᱳᱩᱟᱮ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱳᱯ ᱴᱮ ।

᱖. $\frac{᱘}{᱘}$, $\frac{᱖}{᱗}$ ᱟᱦ $\frac{᱒}{᱗᱒}$ ᱮᱥᱵᱵ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱦᱮᱨᱟᱧ ᱢᱥᱮᱥᱜ ᱮᱧ ᱵᱟᱚᱮ ᱠᱳᱩᱟᱮ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱳᱯ ᱴᱮ ।

ᱦᱟᱴᱟᱤᱧᱚᱠ ᱦᱮ ᱢᱥᱜᱞᱜ ᱩᱟᱦᱟᱤ

ᱡᱳᱚᱳ ᱡᱞᱮᱞᱠ ᱟᱦᱶᱟᱤ ᱮᱯᱮᱯ ᱦᱮᱧᱮ ᱢᱥᱜᱞᱜ ᱩᱟᱦᱟᱤ ᱩᱮᱮᱟᱧ ᱟᱵᱟᱤ ᱧᱮᱨᱟ । ᱳᱮᱟᱵᱟ ᱧᱮ ᱦᱟᱴᱟᱤᱧᱚᱠ ᱦᱮᱢᱳ ᱢᱥᱜᱞᱜ ᱩᱟᱦᱟᱤ ᱩᱮᱮᱟᱧ ᱟᱵᱟᱤ-ᱟ । ᱳᱮᱟ ᱳᱵᱟ ᱶᱳ ᱡᱞᱮᱢᱟ.ᱩᱟ ᱳᱮᱟ ᱶᱳ ᱜᱮᱯᱟ ।

ᱵᱚᱢᱟᱨᱟᱜ ᱯᱟᱚᱷᱟ ᱞᱮ ᱮ $\frac{᱗}{᱒}$ ᱯᱦᱤᱷᱟ. ᱢᱮᱱᱟᱜ-ᱟ ᱟᱨ ᱠᱟ.ᱞᱥᱩᱟᱜ ᱯᱟᱚᱷᱟ ᱞᱮ ᱯ $\frac{᱗}{᱖}$ ᱜᱟᱤᱟᱥ ᱯᱦᱤᱷᱟ. ᱢᱮᱱᱟᱜ-ᱟ ।

ᱮᱱᱠᱷᱟᱮ ᱷᱠᱷᱨ ᱤᱷᱮᱱ ᱚᱷᱮᱞ ᱯᱦᱤᱷᱟ. ᱢᱮᱱᱟᱜ-ᱟ ?

ᱥᱮᱞᱟᱣᱷ – ᱮᱱᱠᱷᱟᱮ ᱵᱚᱢᱟᱨ ᱤᱷᱮᱱ ᱮ ᱨᱟ ᱜᱟᱤᱟ ᱯᱦᱤᱷᱟ. ᱚᱟᱣᱮ.ᱮ ᱣᱮᱷᱟ ᱠᱟ.ᱞᱥ ᱤᱷᱮᱱ ᱯ ᱜᱟᱤᱟ ᱯᱦᱤᱷᱟ. ᱢᱮᱱᱟᱜ-ᱟ ᱮᱱᱟ.ᱠᱷᱟᱱ ᱠᱟ.ᱞᱥ ᱤᱷᱮᱱ ᱣᱟ.ᱷᱚᱦ ᱯᱦᱤᱷᱟ. ᱢᱮᱱᱟᱜ-ᱟ ।

∴ ᱯ $\frac{᱗}{᱖}$ > ᱮ $\frac{᱗}{᱒}$

$\frac{᱔}{᱒}$ ᱟᱨ $\frac{᱖}{᱒}$ ᱞᱮᱶᱷ ᱣᱥᱮᱥᱜ ᱶᱷᱠᱦᱱ ᱵᱚᱢᱟᱱ ᱜᱮᱨᱟ ᱮᱱᱠᱷᱟᱱ ᱣᱥᱮᱥᱤ ᱞᱟᱣᱟ· ᱩᱟᱞᱟᱥ-ᱟ ᱷᱮᱟ ᱞᱟᱯᱟᱥᱜᱷᱵ ᱩᱟᱞᱟᱥ-ᱟ ।

∴ $\frac{᱔}{᱒}$ < $\frac{᱖}{᱒}$ ।

ᱷᱮᱠᱟᱜᱮ – $\frac{᱗}{᱔}$ ᱟᱨ $\frac{᱗}{᱖}$ ᱞᱮᱶᱷ ᱟᱣᱷ ᱣᱷ ᱥᱮᱯᱟ $\frac{᱗}{᱔}$ ᱶᱷ ᱩᱦᱶᱤᱟᱥ ᱞᱷ˜ ᱯ ᱠᱮᱞᱟᱜ ᱠᱷᱷᱮ ᱩᱦᱶ ᱠᱮᱞᱟᱜ, ᱷᱮᱠᱟᱜᱮ $\frac{᱗}{᱖}$ ᱶᱷ ᱩᱦᱶᱤᱟᱥ ᱞᱷ˜ ᱯ ᱞᱮᱮᱟᱜ ᱨ ᱠᱮᱞᱟᱜ ᱶᱷ ᱖ ᱠᱮᱞᱟᱜ ᱞᱮᱮᱟᱜ ᱩᱦᱶ ᱠᱮᱞᱟᱜ ᱶᱷ ᱩᱟᱞᱟᱥ ᱜᱮᱨᱟ ।

∴ $\frac{᱗}{᱔}$ > $\frac{᱗}{᱖}$

ᱷᱮᱠᱟᱜᱮ ᱣᱟᱞᱮᱨᱟ $\frac{᱗}{᱔}$ ᱟᱨ ᱣᱟᱞᱮᱨ $\frac{᱗}{᱖}$ ᱣᱷᱦᱚᱞᱦ ᱞᱮᱶᱷ

$\frac{᱒}{᱔}$ > $\frac{᱒}{᱖}$

✽ [illegible]

[illegible]

᱑. [illegible]

(i) ᱗/᱑᱐ , ᱘/᱑᱐ (ii) ᱑᱑/᱒᱖ , ᱑᱕/᱒᱖ (iii) ᱑᱒/᱑᱐᱕ , ᱘/᱑᱐᱕

᱒. [illegible]

(i) ᱑/᱘ , ᱕/᱘ , ᱓/᱘ (ii) ᱑᱒/᱑᱗ , ᱕/᱑᱗ , ᱑᱐/᱑᱗

᱓. [illegible]

(i) ᱑/᱕ , ᱑᱑/᱕ , ᱓/᱕ (ii) ᱘/᱑᱓ , ᱑/᱑᱓ , ᱑᱕/᱑᱓

[illegible]

[illegible] – ᱑

᱒/᱓ [illegible] ᱓/᱔ [illegible]

᱒/᱓ = ᱔/᱖ = ᱘/᱑᱒ = ᱑᱐/᱑᱕ = ᱑᱒/᱑᱘ = ᱑᱔/᱒᱑ = ᱑᱖/᱒᱔ = ᱑᱘/᱒᱗

[illegible] ᱓/᱔ = ᱖/᱘ = ᱙/᱑᱒ = ᱑᱒/᱑᱖ = ᱑᱕/᱒᱐ = ᱑᱘/᱒᱔ = ᱒᱑/᱒᱘ = ᱒᱔/᱓᱒ ......

[illegible] ᱒/᱓ [illegible] ᱓/᱔ [illegible]

[illegible] $\frac{2}{3} = \frac{8}{12}$ [illegible] $\frac{3}{4} = \frac{9}{12}$

[illegible] $\frac{8}{12} < \frac{9}{12}$

[illegible] $\frac{2}{3} < \frac{3}{4}$ [illegible] ।

[illegible] — 2

$\frac{5}{6}$ [illegible] $\frac{8}{15}$ [illegible]

[illegible] ।

[illegible] — [illegible]

[illegible]

$$\frac{5}{6} = \frac{10}{12} = \frac{15}{18} = \frac{20}{24} = \frac{25}{30} = \frac{30}{36} = \ldots\ldots$$

$$\frac{8}{15} = \frac{16}{30} = \frac{24}{45} = \ldots\ldots$$

[illegible]

$$\frac{5}{6} = \frac{25}{30} \text{ [illegible] } \frac{8}{15} = \frac{16}{30}$$

[illegible] $25 > 16$ [illegible] $\frac{25}{30} > \frac{16}{30}$

$$\therefore \quad \frac{5}{6} = \frac{8}{15}$$

[illegible] —

$\frac{5}{6}$ [illegible] $\frac{8}{15}$ [illegible]

[illegible] ।

$6 = 2 \times 3$ $\qquad$ $15 = 3 \times 5$

[illegible] $= 2 \times 3 \times 5 = 30$

$\frac{୫}{୬} = \frac{୫ \times ୫}{୬ \times ୫} = \frac{୨୫}{୩୦}$　　$\frac{୮}{୧୫} = \frac{୮ \times ୨}{୧୫ \times ୨} = \frac{୧୬}{୩୦}$

[illegible] ୨୫ > ୧୬ 　∴ $\frac{୫}{୬} > \frac{୮}{୧୫}$

[illegible]

୧. [illegible] କର ।

(କ) [illegible] (ଖ) [illegible] (ଗ) [illegible] (ଘ) [illegible]

୨. [illegible] >, < [illegible] = [illegible] କର ।

(କ) [illegible] ☐ [illegible]　(ଖ) [illegible] ☐ [illegible]

(ଗ) [illegible] ☐ [illegible]　(ଘ) [illegible] ☐ [illegible]

୩. [illegible] କର ।

(କ) [illegible]　(ଖ) [illegible]

ᱥᱟᱢᱟᱱ ᱦᱟᱹᱴᱤᱧ ᱥᱮᱞᱮᱫ

ᱩᱫᱟ.ᱦᱟᱨᱚᱬ. — ᱑

$\frac{᱕}{᱙}$ ᱟᱨ $\frac{᱓}{᱙}$ ᱦᱟᱹᱴᱤᱧ ᱥᱮᱞᱮᱫ ᱢᱮ ᱾

ᱥᱚᱢᱟᱫᱷᱟᱱ — $\frac{᱕}{᱙} + \frac{᱓}{᱙} = \frac{᱕\times᱓}{᱙} = \frac{᱘}{᱙}$

ᱩᱫᱟ.ᱦᱟᱨᱚᱬ. — ᱒

$\frac{᱑}{᱒}$ ᱟᱨ $\frac{᱑}{᱓}$ ᱦᱟᱹᱴᱤᱧ ᱥᱮᱞᱮᱫ ᱢᱮ ᱾

ᱥᱚᱢᱟᱫᱷᱟᱱ — $\frac{᱑}{᱒} + \frac{᱑}{᱓} = \frac{᱑\times᱓}{᱒\times᱓} + \frac{᱑\times᱒}{᱓\times᱒} = \frac{᱓}{᱖} + \frac{᱒}{᱖}$

$= \frac{᱓+᱒}{᱖} = \frac{᱕}{᱖}$

<u>ᱡᱟᱸᱪ ᱥᱮᱞᱮᱫ</u>

$\frac{᱑}{᱒} + \frac{᱑}{᱓} = \frac{᱑\times᱓+᱑\times᱒}{᱖} = \frac{᱓+᱒}{᱖} = \frac{᱕}{᱖}$

ᱠᱟᱹᱢᱤ ᱵᱟᱹᱲᱛᱤ

᱑. ᱦᱟᱹᱴᱤᱧ ᱠᱚ ᱥᱮᱞᱮᱫ ᱢᱮ ᱾

(ᱚ) $\frac{᱕}{᱙} + \frac{᱓}{᱙}$ (ᱛ) $\frac{᱖}{᱗} + \frac{᱓}{᱗}$ (ᱜ) $\frac{᱔}{᱘} + \frac{᱕}{᱘}$

(ᱝ) $\frac{᱑}{᱖} + \frac{᱕}{᱙}$ (ᱞ) $\frac{᱓}{᱖} + \frac{᱕}{᱘}$ (ᱟ) $\frac{᱓}{᱕} + \frac{᱖}{᱗}$

ᱥᱟᱢᱟᱱ ᱦᱟᱹᱴᱤᱧ ᱚᱰᱚᱠ

ᱩᱫᱟ.ᱦᱟᱨᱚᱬ. — ᱑

$\frac{᱓}{᱖}$ ᱠᱷᱚᱱ $\frac{᱑}{᱒}$ ᱚᱰᱚᱠ ᱢᱮ ᱾

ᱥᱚᱢᱟᱫᱷᱟᱱ — $\frac{᱓}{᱖} - \frac{᱑}{᱒} = \frac{᱓\times᱑-᱑\times᱓}{᱖} = \frac{᱓-᱓}{᱖} = \frac{᱑}{᱖}$

[illegible]

ᱥᱟ.ᱨᱠᱟ. – ᱒

(ᱠ) $᱒\frac{᱑}{᱒} - ᱑\frac{᱓}{᱔}$ (ᱠ) (ᱛ) $᱑\frac{᱑}{᱕} - ᱑\frac{᱑}{᱓}$ (ᱛ) (ᱜ) $᱑ - \frac{᱑}{᱓}$

ᱟᱨᱥᱮ – (ᱠ) $᱒\frac{᱑}{᱒} - ᱑\frac{᱓}{᱔} = \frac{᱕}{᱒} - \frac{᱗}{᱔} = \frac{᱕\times᱒-᱗}{᱔}$

$= \frac{᱑᱐-᱗}{᱔} = \frac{᱓}{᱔}$

(ᱛ) $᱑\frac{᱑}{᱕} - ᱑\frac{᱑}{᱓} = \frac{᱖}{᱕} - \frac{᱔}{᱓} = \frac{᱖\times᱓-᱔\times᱕}{᱕\times᱓} = \frac{᱑᱘-᱒᱐}{᱑᱕}$

$= \frac{᱒}{᱑᱕}$

(ᱜ) $᱑ - \frac{᱑}{᱓} = \frac{᱑\times᱓-᱑}{᱓} = \frac{᱓-᱑}{᱓} = \frac{᱒}{᱓}$

ᱱᱤᱡᱮᱨ ᱠᱟᱹᱢᱤ

᱑. ᱟᱨᱥᱮ ᱞᱟᱹᱜᱤᱫ ᱦᱤᱥᱟᱹᱵ ᱢᱮ ।

(ᱠ) $᱑\frac{᱑}{᱓} + ᱒\frac{᱑}{᱓}$ (ᱛ) $᱑\frac{᱒}{᱗} + ᱒\frac{᱑}{᱕}$ (ᱜ) $᱒\frac{᱑}{᱓} + ᱕\frac{᱖}{᱗}$

(ᱪ) $᱒\frac{᱑}{᱒} - ᱑\frac{᱕}{᱓}$ (ᱫ) $᱑\frac{᱗}{᱕} - \frac{᱕}{᱓}$ (ᱭ) $᱕\frac{᱑}{᱕} - ᱒\frac{᱑}{᱒}$

ᱫᱮᱥᱟᱢ ᱦᱤᱥᱟᱹᱵ

ᱟᱞᱚ ᱮᱞᱠᱷᱟ ᱨᱮ ᱟᱹᱠᱟᱹ ᱯᱮᱠᱷᱟᱹᱱᱟᱹ ᱪᱤᱱᱦᱟᱹ. ᱠᱚ ᱯᱟᱹᱭᱟᱹᱞ ᱠᱟᱱᱟ ᱟᱨᱥᱮ ᱯᱟ.ᱵᱤᱱ ᱚᱲᱮ ᱞᱚ ᱟᱹᱯᱩᱛᱟᱹ ᱠᱟᱱᱟ । ᱡᱮᱢᱚᱱ – ‘+’, ‘–’ ᱯᱮᱠᱷᱟᱹᱱᱟᱹ ᱠᱚ । ᱵᱮᱠᱟ ᱫᱮ ᱟᱹᱭ ᱡᱤᱱᱤᱥ ᱪᱤᱱᱦᱟᱹ. ᱯᱟᱹᱭᱟᱹᱞᱟᱹ ᱠᱟᱱᱟ । ᱵᱮᱫ ᱥᱚ (.), ᱵᱚᱞᱚᱱ ᱥᱚ ᱫᱮᱥᱟᱢ ᱦᱤᱥᱟᱹᱵ ᱡᱮᱵᱚᱲᱮ ᱞᱚ ᱡᱮᱲᱟᱹᱱ ᱠᱟᱱᱟ । ᱵᱚᱞᱚᱱ ᱟᱹᱨᱮᱵᱟᱹ ᱞᱮᱨᱮᱞᱟᱹᱭ ᱞᱚ ᱜᱮᱯ – ᱑ ᱦᱟᱹᱛᱤᱱ ᱟᱹᱨᱮ ᱠᱚ ᱵᱷᱟᱹᱜᱤᱭᱟᱹ. ᱥᱚ ᱚᱨᱮᱵᱟᱹ ᱮᱸᱫᱮᱭ ? ᱟᱞᱚ ᱞᱚ ᱞᱟᱹᱦᱟᱹᱨᱟᱹ ᱑ ᱦᱟᱹᱛᱤᱱ =

᱑᱐᱐ ᱦᱟᱹᱴᱤᱧ. । ᱱᱚᱣᱟ ᱞᱮᱠᱟ ᱛᱮ $\frac{᱖᱐}{᱑᱐᱐}$ ᱵᱮᱱᱟᱣ, ᱥᱮᱱ ᱫᱚ .᱖᱐ ᱢᱤᱫᱛᱮ ᱐.᱖᱐ (ᱥᱟᱢᱟᱝ ᱫᱚᱥᱢᱤᱫ ᱦᱤᱥᱟᱹᱵ ᱞᱮᱠᱷᱟ) । ᱱᱚᱣᱟ ᱫᱚ ᱥᱟᱢᱟᱝ ᱫᱚᱥᱢᱤᱫ ᱦᱤᱥᱟᱹᱵ ᱞᱮᱠᱷᱟ ᱞᱮᱠᱷᱟᱭ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ । ᱖᱐ ᱨᱮᱭᱟᱜ '᱖' ᱫᱚ ᱫᱚᱥᱢᱤᱫ ᱛᱟᱞᱟᱨᱮ ᱨᱮᱭᱟᱜ ᱫᱚ ᱡᱟᱭᱜᱟ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ ᱟᱨ '᱐' ᱫᱚ ᱥᱟᱭᱢᱤᱫ ᱛᱟᱞᱟᱨᱮ ᱨᱮᱭᱟᱜ ᱫᱚ ᱡᱟᱭᱜᱟ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ । ᱱᱚᱣᱟ ᱵᱮᱱᱟᱣ ᱠᱚᱨᱟᱣ ᱨᱮᱭᱟᱜ '᱐' ᱫᱚ ᱛᱮ ᱟᱱᱟᱜ-ᱟ ᱥᱮᱱ ᱫᱚ ᱥᱟᱭᱢᱤᱫ ᱛᱟᱞᱟᱨᱮ ᱨᱮᱭᱟᱜ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ, ᱥᱮᱱ ᱫᱚ ᱥᱟ.ᱵᱟᱹᱲᱛᱤ ᱛᱮ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ ।

ᱫᱚᱥᱢᱤᱫ ᱦᱤᱥᱟᱹᱵ ᱨᱮᱭᱟᱜ ᱠᱚᱨᱟᱣ ᱨᱮᱭᱟᱜ ᱛᱮ ᱦᱩᱭ ᱨᱮᱭᱟᱜ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ –

ᱫᱚᱥᱦᱟᱡᱟᱨ	ᱦᱟᱡᱟᱨ	ᱥᱟᱭ	ᱫᱚᱥ	ᱮᱠᱟᱭ
᱑᱐᱐᱐᱐	᱑᱐᱐᱐	᱑᱐᱐	᱑᱐	᱑

ᱵᱟᱲᱟᱭ ᱠᱟᱱᱟ ᱟᱨ ᱛᱮᱦᱚᱸ ᱦᱩᱭ ᱨᱮᱭᱟᱜ ᱞᱮᱠᱷᱟ ᱥᱟᱹᱨᱤ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ ᱡᱮ, ᱦᱟᱡᱟᱨ ᱫᱚ ᱫᱚᱥᱦᱟᱡᱟᱨ ᱨᱮᱭᱟᱜ ᱫᱚᱥ ᱦᱤᱥᱟᱹᱵ ᱦᱩᱭ ᱮᱠᱟᱭ ᱦᱤᱥᱟᱹᱵ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ, ᱥᱟᱭ ᱫᱚ ᱦᱟᱡᱟᱨ ᱨᱮᱭᱟᱜ ᱫᱚᱥ ᱦᱤᱥᱟᱹᱵ ᱦᱩᱭ ᱮᱠᱟᱭ ᱦᱤᱥᱟᱹᱵ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ, ᱫᱚᱥ ᱫᱚ ᱥᱟᱭ ᱨᱮᱭᱟᱜ ᱫᱚᱥ ᱦᱤᱥᱟᱹᱵ ᱦᱩᱭ ᱮᱠᱟᱭ ᱦᱤᱥᱟᱹᱵ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ ᱟᱨ ᱮᱠᱟᱭ ᱫᱚ ᱫᱚᱥ ᱨᱮᱭᱟᱜ ᱫᱚᱥ ᱦᱤᱥᱟᱹᱵ ᱦᱩᱭ ᱮᱠᱟᱭ ᱦᱤᱥᱟᱹᱵ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ । ᱥᱮᱱᱟᱢ ᱫᱚ ᱥᱮᱞᱮᱫ ᱥᱮᱱ ᱮᱠᱟᱭ ᱛᱮᱦᱚᱸ ᱨᱮᱭᱟᱜ ᱠᱚᱨᱟᱣ ᱨᱮ ᱵᱮᱱᱟᱣ ᱛᱮ ᱞᱮ ᱛᱟᱦᱮᱸ ᱥᱮᱱ ᱦᱤᱥᱟᱹᱵ ᱞᱟᱜᱤᱫ. ᱯᱟ.ᱫᱤᱭᱟ ᱚᱨ ᱫᱚᱥᱢᱤᱫ ᱦᱤᱥᱟᱹᱵ (.) ᱞᱮ ᱯᱟᱛᱷᱟᱣᱟ । ᱫᱚᱥᱢᱤᱫ ᱦᱤᱥᱟᱹᱵ ᱠᱚᱨᱟᱣ ᱛᱮᱦᱚᱸ ᱫᱚ ᱮᱠᱟᱭ ᱨᱮᱭᱟᱜ ᱫᱚᱥ ᱦᱤᱥᱟᱹᱵ ᱢᱤᱫᱛᱮ $\frac{᱑}{᱑᱐}$ । $\frac{᱑}{᱑᱐}$ ᱥᱮᱞᱮᱫ ᱫᱚᱞᱮ ᱮᱨᱮᱱ ᱫᱚᱥᱢᱤᱫᱛᱮᱭᱟᱜ ।

ᱥᱮᱞᱮᱫ ᱨᱮᱭᱟᱜ ᱠᱚᱨᱟᱣ ᱦᱩᱭᱩᱜ ᱫᱚ ᱮᱠᱟᱭ ᱨᱮᱭᱟᱜ ᱥᱟᱭ ᱦᱤᱥᱟᱹᱵ ᱢᱤᱫᱛᱮ $\frac{᱑}{᱑᱐᱐}$ । ᱥᱮᱱ ᱫᱚ ᱥᱟᱭᱢᱤᱫᱛᱮᱭᱟᱜ ᱞᱮ ᱮᱨᱮᱱ । ᱥᱟᱞᱟᱜ ᱞᱟᱹᱭ ᱥᱮ.ᱜᱟ –

ᱦᱟᱡᱟᱨ	ᱥᱟᱭ ᱫᱚᱥ	ᱮᱠᱟᱭ		ᱫᱚᱥᱢᱤᱫᱛᱮᱭᱟᱜ	ᱥᱟᱭᱢᱤᱫᱛᱮᱭᱟᱜ
᱑᱐᱐᱐	᱑᱐᱐ ᱑᱐	᱑	.	$\frac{᱑}{᱑᱐}$	$\frac{᱑}{᱑᱐᱐}$

ᱮᱱᱠᱷᱟᱱ ᱱᱤᱛ ᱵᱚ ᱵᱟᱰᱟᱭ ᱠᱮᱜᱼᱟ

$\frac{᱑}{᱑᱐}$ = ᱐.᱑ = ᱥᱩᱱ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱢᱤᱫ

$\frac{᱖}{᱑᱐}$ = ᱐.᱖ = ᱥᱩᱱ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱛᱩᱨᱩᱭ

$\frac{᱑᱙}{᱑᱐}$ = ᱑.᱙ = ᱢᱤᱫ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱟᱨᱮ

$\frac{᱑}{᱑᱐᱐}$ = ᱐.᱐᱑ = ᱥᱩᱱ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱥᱩᱱ ᱢᱤᱫ

ᱟᱨᱵᱟᱝ ᱠᱷᱟᱱ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱥᱩᱱ ᱢᱤᱫ

$\frac{᱑᱕}{᱑᱐᱐}$ = ᱐.᱑᱕ = ᱥᱩᱱ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱢᱤᱫ ᱢᱚᱬᱮ

$\frac{᱒᱑᱒}{᱑᱐᱐}$ = ᱒.᱑᱒ = ᱵᱟᱨ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱢᱤᱫ ᱵᱟᱨ

ᱣᱮᱣᱟ ᱠᱩᱠᱞᱤ

᱑. ᱚᱠᱟ ᱞᱮᱠᱟ ᱵᱚ ᱯᱟᱲᱦᱟᱣᱟ ।

᱐.᱕, ᱐.᱙, ᱕.᱖, ᱐.᱓, ᱑.᱒, ᱐.᱓, ᱐.᱖, ᱑᱔.᱙, ᱙.᱒, ᱐.᱒

᱒. ᱞᱟᱛᱟᱨ ᱨᱮ ᱚᱞ ᱟᱠᱟᱱ ᱨᱟᱯᱟᱝᱜᱚᱥ ᱠᱚ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱛᱮ ᱵᱚᱫᱚᱞ ᱯᱮ ।

$\frac{᱘}{᱑᱐}$, $\frac{᱗}{᱑᱐}$, $\frac{᱙}{᱑᱐}$, $\frac{᱑᱐}{᱑᱐}$, $\frac{᱑᱔}{᱑᱐}$, $\frac{᱒}{᱑᱐}$, $\frac{᱕}{᱑᱐}$, $\frac{᱘}{᱑᱐}$, $\frac{᱒᱒}{᱑᱐}$, $\frac{᱒᱕}{᱑᱐}$

᱓. ᱞᱟᱛᱟᱨ ᱨᱮ ᱚᱞ ᱟᱠᱟᱱ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱮᱞ ᱠᱚ ᱨᱟᱯᱟᱝᱜᱚᱥ ᱨᱮ ᱵᱚᱫᱚᱞ ᱯᱮ ।

᱐.᱕, ᱐.᱙, ᱐.᱘, ᱑.᱖, ᱑᱒.᱕, ᱑.᱒᱔, ᱐.᱑᱔, ᱒.᱑᱒, ᱒᱔.᱒

᱔. ᱱᱚᱣᱟ ᱨᱟᱯᱟᱝᱜᱚᱥ ᱠᱚ ᱜᱮᱞᱟᱝ ᱦᱩᱰᱟᱹᱜ ᱛᱮ ᱚᱞ ᱯᱮ

$\frac{᱑}{᱒}$, $\frac{᱑}{᱔}$, $\frac{᱒}{᱕}$, $\frac{᱓}{᱑᱐}$, $\frac{᱔}{᱘}$, $\frac{᱘}{᱒᱕}$, ᱑$\frac{᱑}{᱒}$, ᱒$\frac{᱑}{᱘}$, ᱔$\frac{᱑}{᱕}$, ᱖$\frac{᱔}{᱒᱕}$

ଉଦାହରଣ – ୧ – $\frac{୧}{୨} = \frac{୧x୫}{୨x୫} = \frac{୫}{୧୦} = ୦.୫$

୨. $\frac{୧}{୪} = \frac{୧x୫x୫}{୪x୫x୫} = \frac{୨୫}{୧୦୦} = ୦.୨୫$

୩. $୧\frac{୧}{୨} = ୧ + \frac{୧x୨x୫x୫}{୨x୨x୫x୫} = ୧ + \frac{୫୦}{୧୦୦} = ୧.୫୦ = ୧.୫$

ଦଶମିକ ସଂଖ୍ୟାର ଯୋଗ କରିବା

୦.୨ ଓ ୦.୨୫ କୁ ଯୋଗ କରିବା ।

$୦.୨ = \frac{୨}{୧୦}, \quad ୦.୨୫ = \frac{୨୫}{୧୦୦}$

$\therefore ୦.୨ + ୦.୨୫ = \frac{୨୦}{୧୦୦} + \frac{୨୫}{୧୦୦}$

$= \frac{୨x୧୦+୧x୨୫}{୧୦୦} = \frac{୨୦+୨୫}{୧୦୦} = \frac{୪୫}{୧୦୦} = ୦.୪୫$

ଏହା ଘର ମାଧ୍ୟମରେ କରିବା –

ସଂଖ୍ୟା	ଦଶମାଂଶ ଘର	ଶତାଂଶ ଘର
୦.୨	୨	୦
୦.୨୫	୨	୫
	୪	୫

(ଦଶମାଂଶ ଘର ଅଙ୍କମାନଙ୍କୁ ଯୋଗ କରି ଦଶମାଂଶ ଘରରେ ଓ ଶତାଂଶ ଘର ଅଙ୍କମାନଙ୍କୁ ଯୋଗ କରି ଶତାଂଶ ଘରରେ ଲେଖାଯାଏ)

$\therefore ୦.୨ + ୦.୨୫ = ୦.୪୫$

[illegible]

[illegible]

[illegible] :

[illegible]

[illegible] —[illegible]. [illegible]

	[illegible] . [illegible]
(−)	[illegible] . [illegible]
[illegible] =	[illegible] . [illegible]

[illegible] —[illegible]. [illegible]

	[illegible] . [illegible]
(−)	[illegible] . [illegible]
[illegible] =	[illegible] . [illegible]

[illegible]

[illegible]. [illegible] —

([illegible]) [illegible] + [illegible] ([illegible]) [illegible] + [illegible]

([illegible]) [illegible] + [illegible] ([illegible]) [illegible] + [illegible]

([illegible]) [illegible] + [illegible] ([illegible]) [illegible] + [illegible] + [illegible]

[illegible]. [illegible] —

([illegible]) [illegible] − [illegible] ([illegible]) [illegible] − [illegible]

([illegible]) [illegible] − [illegible] ([illegible]) [illegible] − [illegible]

([illegible]) [illegible] − [illegible] ([illegible]) [illegible] − [illegible]

([illegible]) [illegible] − [illegible] ([illegible]) [illegible] − [illegible]

([illegible]) [illegible] − [illegible] ([illegible]) [illegible] − [illegible]

[illegible] [illegible] ।

[illegible] [illegible] ?

[illegible] [illegible] ?

[illegible] [illegible] ?

[illegible] [illegible] ?

[illegible] [illegible] ।

[illegible] [illegible] ।

[illegible]

[illegible] –

[illegible] ।

[illegible]

[illegible]

[illegible] ($\frac{[illegible]}{[illegible]}$) [illegible] ≠0, [illegible]

[illegible] $\frac{[illegible]}{[illegible]}$ [illegible] 00:60, 60:20, [illegible]

[illegible] $\frac{[illegible]}{[illegible]}$ [illegible]

ᱯᱟᱹᱭᱠᱟᱹ. –᱑. ᱑. ᱢᱤᱫᱴᱟᱝ ᱜᱚᱲᱟ ᱨᱮ ᱑᱒᱐ ᱜᱚᱴᱟᱝ ᱜᱟᱹᱭ ᱟᱨ ᱖᱐ ᱜᱚᱴᱟᱝ ᱢᱤᱫᱩᱸ ᱢᱮᱱᱟᱜ-ᱠᱚᱣᱟ । ᱜᱟᱹᱭ ᱟᱨ ᱢᱤᱫᱩᱸ ᱮᱞ ᱨᱮᱱᱟᱜ ᱦᱟᱹᱱᱤ ᱪᱮᱫ ᱚᱤᱱᱟᱹᱜ ?

ᱛᱟᱹᱱᱟᱹᱭ – ᱜᱟᱹᱭ ᱟᱨ ᱢᱤᱫᱩᱸ ᱮᱞ ᱨᱮᱱᱟᱜ ᱦᱟᱹᱱᱤ

᱑᱒᱐ : ᱖᱐ ᱟᱨᱚᱫᱟᱥ $\frac{᱑᱒᱐}{᱖᱐} = \frac{᱑᱒}{᱖} = \frac{᱖}{᱓}$

ᱮᱱᱟᱛᱮ ᱜᱟᱹᱭ ᱟᱨ ᱢᱤᱫᱩᱸ ᱮᱞ ᱨᱮᱱᱟᱜ ᱦᱟᱹᱱᱤ = ᱖:᱓

ᱞᱚᱜᱟᱱ ᱚᱞ ᱛᱮᱠᱷᱟᱱᱮ ᱫᱚᱸ ᱜᱟᱱᱮᱚᱜ-ᱟ –

ᱜᱟᱹᱭ ᱮᱞ : ᱢᱤᱫᱩᱸ ᱮᱞ ᱟᱨᱚᱫᱟᱥ $\frac{\text{ᱜᱟᱹᱭ ᱮᱞ}}{\text{ᱢᱤᱫᱩᱸ ᱮᱞ}}$

ᱯᱟᱹᱭᱠᱟᱹ. –᱑. ᱒. ᱠᱟᱹᱥᱩ ᱴᱷᱮᱱ ᱒᱖ ᱴᱟᱠᱟ ᱢᱮᱱᱟᱜ-ᱟ । ᱞᱩᱠᱟᱹ ᱴᱷᱮᱱ ᱓᱐ ᱯᱚᱭᱥᱟᱹ ᱢᱮᱱᱟᱜ-ᱟ । ᱠᱟᱹᱥᱩ ᱟᱨ ᱞᱩᱠᱟᱹ ᱴᱷᱮᱱ ᱢᱮᱱᱟᱜ ᱯᱚᱭᱥᱟᱹ ᱮᱞ ᱦᱟᱹᱱᱤ ᱪᱮᱫ ᱚᱤᱱᱟᱹᱜ ?

ᱛᱟᱹᱱᱟᱹᱭ $\frac{\text{ᱠᱟᱹᱥᱩᱣᱟᱜ ᱯᱚᱭᱥᱟᱹ}}{\text{ᱞᱩᱠᱟᱹᱫᱚᱜ ᱯᱚᱭᱥᱟᱹ}} = \frac{᱒᱖ \times ᱑᱐᱐}{᱓᱐} = \frac{᱒᱖᱐᱐}{᱓᱐}$

$= \frac{᱒᱖᱐}{᱓}$

∴ ᱞᱟᱹᱥᱤ ᱦᱟᱹᱱᱤ ᱪᱮᱫ ᱒᱖᱐:᱓

(ᱞᱚᱸᱫᱮ ᱒᱖ ᱴᱟᱠᱟ ᱪᱮᱫ ᱯᱚᱭᱥᱟᱹ ᱛᱮᱠᱟ ᱞᱚᱯᱚᱨᱮᱞᱮᱱ)

ᱯᱟᱹᱭᱠᱟᱹ. –᱑. ᱓. ᱟᱯᱮ ᱤᱛᱩᱮ ᱟᱞᱫᱟ ᱦᱟᱹᱞᱤᱟᱹᱢ ᱑᱐ ᱴᱷᱟᱱᱟ ᱨᱮ ᱦᱩᱭᱤᱦ ᱠᱟᱱᱮ ᱚᱟᱨᱟᱞᱤᱣ ᱖ ᱴᱷᱟᱱᱟ ᱫᱚᱠᱚᱫ ᱨᱮ ᱞᱤᱣᱩᱜ-ᱟ । ᱚᱟᱛᱟ ᱨᱮ ᱦᱚᱢ ᱦᱟᱠᱷᱩᱨᱟ ᱫᱤᱜᱟ. ᱓᱐ ᱴᱷᱤᱦ ᱣᱟᱢᱚᱜ-ᱟ । ᱟᱯᱮᱞᱟᱜ ᱦᱚᱢ ᱫᱤᱜᱟ. ᱫᱚᱠᱚᱫ ᱟᱨ ᱟᱞᱫᱟ ᱫᱚᱠᱚᱫ ᱨᱮᱱᱟᱜ ᱦᱟᱹᱱᱤ ᱪᱮᱫ ᱚᱤᱱᱟᱹᱜ ?

ᱛᱟᱹᱱᱟᱹᱭ – ᱫᱚᱠᱚᱫ ᱦᱟᱹᱞᱤᱟᱹᱢ ᱑᱐ ᱴᱷᱟᱱᱟ ᱠᱷᱚᱫᱮ

ᱚᱟᱨᱟᱞᱤᱣ ᱖ ᱴᱷᱟᱱᱟ = ᱔ ᱴᱷᱟᱱᱟ

ᱦᱚᱢ ᱛᱟᱹᱜᱤᱯ ᱫᱤᱜᱟ. = ᱓᱐ ᱴᱷᱤᱦ

∴ [illegible] = [illegible] = [illegible]

∴ [illegible] = [illegible]

[illegible] —[illegible] [illegible]

(a) [illegible]

= [illegible] = [illegible]

(b) [illegible]

[illegible] = [illegible] = [illegible]

[illegible] —[illegible] [illegible] ?

[illegible] — [illegible] = [illegible] ([illegible])

[illegible] = [illegible]

[illegible] + [illegible] = ([illegible]+[illegible]) [illegible] = [illegible]

[illegible]

[illegible] ÷ [illegible] = [illegible]

[illegible] = [illegible] x [illegible] = [illegible]

[illegible] = [illegible] x [illegible] = [illegible]

∴ [illegible] ।

[illegible] —[illegible] [illegible] ?

ᱯᱟᱹ.ᱨᱟᱹ.ᱦ – ᱠᱚᱲᱟ : ᱠᱩᱲᱤ = ᱕ : ᱗

ᱠᱚᱲᱟ ᱕ ᱥᱮᱨᱢᱟ ᱠᱷᱚᱱ ᱠᱩᱲᱤ ᱗ ᱥᱮᱨᱢᱟ ᱾

ᱠᱩᱲᱤ ᱨᱮ ᱓᱕

᱗ ᱥᱮᱨᱢᱟ ᱠᱷᱚᱱ ᱓᱕

᱑ ᱥᱮᱨᱢᱟ ᱠᱷᱚᱱ ᱓᱕÷᱗=᱕

᱕ ᱥᱮᱨᱢᱟ ᱠᱷᱚᱱ ᱕x᱕=᱒᱕

∴ ᱠᱚᱲᱟ ᱨᱮ ᱫᱚ ᱒᱕ ᱾

ᱛᱤᱣᱚ ᱕ ᱣᱚᱨ ᱠᱚᱲᱟ ᱥᱩᱱᱩᱢ ᱠᱚ ᱚᱞ ᱠᱮᱜ-ᱛ ᱾ ᱮᱱᱚᱛᱜ

ᱠᱚᱲᱟ ᱨᱮ ᱫᱚ ᱒᱕+᱕=᱓᱐

ᱠᱩᱲᱤ ᱨᱮ = ᱓᱕

∴ ᱠᱚᱲᱟ : ᱠᱩᱲᱤ = ᱓᱐ : ᱓᱕ = ᱖ : ᱗

<u>ᱵᱷᱟᱜᱟᱹᱜᱮᱫ ᱵᱮᱦᱟᱜ ᱞᱟ.ᱨᱤ</u>

ᱨᱟ.ᱪᱷᱩᱛ ᱨᱮ ᱞᱮᱠᱟ ᱜᱮ ᱵᱷᱟᱜᱟᱹᱜᱮᱫ ᱵᱮᱣᱚ ᱞᱟ.ᱨᱤ ᱣᱩᱦ ᱫᱚᱟᱨᱦᱟᱜ-ᱛ ᱾

ᱫᱟ.ᱦᱠᱟ. –᱒. ᱙.

$\frac{᱒}{᱓}$ ᱟᱨ $\frac{᱓}{᱔}$ ᱵᱮᱦᱟᱜ ᱞᱟ.ᱨᱤ ᱫᱚ ᱚᱤᱨᱟ.ᱜ ?

ᱯᱟᱹ.ᱨᱟᱹ.ᱦ – ᱩᱤᱫ ᱞᱮᱠᱟᱚᱨ –

$\frac{᱒}{᱓}$ ᱟᱨ $\frac{᱓}{᱔}$ ᱵᱮᱦᱟᱜ ᱞᱟ.ᱨᱤ = $\frac{᱒}{᱓}$: $\frac{᱓}{᱔}$

$= \frac{᱒}{᱓} \div \frac{᱓}{᱔} = \frac{᱒}{᱓} \times \frac{᱔}{᱓} = \frac{᱘}{᱙} = ᱘:᱙$

ᱟᱨᱩᱤᱫ ᱞᱮᱠᱟᱚᱨ –

$\frac{᱒}{᱓} : \frac{᱓}{᱔} = \frac{᱒x᱔}{᱓x᱔} : \frac{᱓x᱓}{᱔x᱓} = \frac{᱘}{᱑᱒} : \frac{᱙}{᱑᱒} = ᱘:᱙$

[illegible] –[illegible]. [illegible].

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] ।

$[\text{illegible}] : [\text{illegible}] = [\text{illegible}] \div [\text{illegible}] = [\text{illegible}] \times [\text{illegible}] = [\text{illegible}] = [\text{illegible}]$

[illegible]–

([illegible]) [illegible] = [illegible] [illegible] ।

([illegible]) [illegible] [illegible] ।

[illegible] –[illegible]. [illegible].

[illegible] ?

[illegible] –

[illegible] ।

[illegible] $\div$ [illegible] $=$ [illegible] ।

[illegible] ।

[illegible] $\div$ [illegible] $=$ [illegible] ।

[illegible] $:$ [illegible] $=$ [illegible] $:$ [illegible]

$=$ [illegible] $:$ [illegible] $=$ [illegible] $:$ [illegible]

ᱥᱮᱨᱢᱟ ᱵᱷᱤᱛᱨᱤ

᱑. ᱞᱟ.ᱜᱟ ᱚᱨ ᱢᱮ –

(ᱠ) ᱖ ᱯᱟᱭᱥᱟ, ᱑᱓ ᱴᱟ. ᱯᱟ.

(ᱠᱷ) ᱑᱖ ᱢᱤᱞᱤᱞᱤᱴᱚᱨ., ᱖ ᱞᱤᱴᱚᱨ

(ᱜ) ᱒᱐᱐ ᱥᱮᱱᱴᱤ, ᱓ ᱢᱤ. ᱥᱮᱱ.

(ᱜᱷ) ᱒᱕ ᱜᱷᱚᱲᱤ, ᱑ ᱜᱷᱚᱲᱤ ᱓᱐ ᱜᱷᱚᱲᱤ

᱒. ᱨᱮᱭᱟᱜ ᱥᱮ ᱚᱨ ᱛᱮᱵᱟᱜ ᱞᱟ.ᱜᱟ ᱵᱚ ᱥᱚᱢᱟᱱ ᱨᱮᱵᱟᱨᱟᱜ ᱚᱨ ᱢᱮ ।

(ᱠ) ᱑᱐ : ᱖᱐ (ᱠᱷ) ᱑᱑᱐ : ᱓᱓ (ᱜ) ᱓᱒᱖ : ᱑᱑᱖

(ᱜᱷ) ᱑᱐᱒ : ᱒᱖᱖ (ᱝ) ᱑᱐᱒᱕ : ᱒᱑᱑᱒ (ᱪ) ᱒᱒᱒᱒ : ᱒᱒᱒᱒

᱓. ᱯᱟᱥᱤᱞᱟ ᱛᱟᱨᱮᱥᱮ ᱥᱮ ᱵᱨ ᱥᱟᱨᱮ ᱑᱒᱕ ᱥᱤᱞᱟ ᱟᱨ ᱜᱟ.ᱥᱵᱟ.ᱨ ᱥᱟᱨᱮ ᱑᱕᱕ ᱥᱤᱞᱟ ᱮᱨᱵᱚᱛᱮ ᱵᱨ ᱥᱟᱨᱮ ᱟᱨ ᱜᱟ.ᱥᱵᱟ.ᱨ ᱥᱟᱨᱮ ᱮᱨ ᱥᱮᱜᱟᱨᱟ ᱞᱟ.ᱜᱟ ᱥᱚ ᱚᱢᱜᱟ.᱕ ?

᱔. ᱟᱢᱮ ᱟ.᱐ᱵ ᱥᱟᱛᱮ ᱵᱚᱢᱟ ᱵᱚᱥᱟᱨᱟ ᱮᱨ ᱑᱑᱒᱖ ᱟᱨ ᱚᱢᱥᱨᱟ. ᱵᱚᱥᱟᱨᱟ ᱮᱨ ᱑᱒᱖᱐ । ᱵᱚᱢᱟ ᱟᱨ ᱚᱢᱥᱨᱟ. ᱵᱚᱥᱟᱨᱟ ᱮᱨ ᱥᱮᱜᱟᱨᱟ ᱞᱟ.ᱜᱟ ᱥᱚ ᱚᱢᱜᱟ.᱕ ?

᱕. ᱯᱟᱥᱤᱞᱟ ᱚᱨ ᱢᱚᱵᱮ ᱟᱜᱚᱢ ᱥᱮ ᱵᱚᱢᱟ ᱥᱚ ᱒᱒ ᱥᱚᱢ ᱟᱨ ᱵᱵᱚᱢ ᱥᱚ ᱑᱐ ᱥᱚᱢ ।

(ᱠ) ᱵᱚᱢᱟ ᱟᱨ ᱵᱵᱚᱢ ᱮᱨ ᱥᱮᱜᱟᱨᱟ ᱞᱟ.ᱜᱟ ᱥᱚ ᱚᱢᱜᱟ.᱕ ?

(ᱠᱷ) ᱵᱵᱚᱢ ᱟᱨ ᱵᱚᱢᱟ ᱮᱨ ᱥᱮᱜᱟᱨᱟ ᱞᱟ.ᱜᱟ ᱥᱚ ᱚᱢᱜᱟ.᱕ ?

(ᱜ) ᱵᱚᱢᱟ ᱮᱨ ᱟᱨ ᱞᱚ᱐ᱚ ᱵᱮ᱐ᱮᱥᱚᱢᱤᱟ. ᱮᱨ ᱥᱮᱜᱟᱨᱟ ᱞᱟ.ᱜᱟ ᱥᱚ ᱚᱢᱜᱟ.᱕ ?

(ᱜᱷ) ᱵᱵᱚᱢ ᱮᱨ ᱟᱨ ᱞᱚ᱐ᱚ ᱵᱮ᱐ᱮᱥᱚᱢᱤᱟ. ᱮᱨ ᱥᱮᱜᱟᱨᱟ ᱞᱟ.ᱜᱟ ᱥᱚ ᱚᱢᱜᱟ.᱕ ?

᱖. ᱥᱵᱯᱥᱟ. ᱥᱟᱜ ᱵᱟ.ᱥᱚ ᱥᱮ ᱟᱥᱞᱟᱚ ᱥᱚ ᱕᱖᱐ ᱜᱨᱟᱢ ᱟᱥ ᱵᱟ.ᱥᱚ ᱥᱮ ᱴᱟᱫᱵᱟᱚ ᱥᱚ ᱑᱒᱖ ᱜᱨᱟᱢ । ᱟᱞᱟᱜ

(ᱠ) ᱵᱟ.ᱥᱚ ᱥᱮ ᱴᱟᱫᱵᱟᱚ ᱟᱥ ᱵᱟ.ᱥᱚ ᱥᱮ ᱟᱥᱞᱟᱚ ᱥᱮᱜᱟᱨᱟ ᱞᱟ.ᱜᱟ ᱥᱚ ᱚᱢᱜᱟ.᱕ ?

(ᱠᱷ) ᱵᱟ.ᱥᱚ ᱥᱮ ᱟᱥᱞᱟᱚ ᱟᱥ ᱵᱟ.ᱥᱚ ᱥᱮ ᱵᱚᱥᱚᱥᱚᱵ ᱥᱮᱜᱟᱨᱟ ᱞᱟ.ᱜᱟ ᱥᱚ ᱚᱢᱜᱟ.᱕ ?

(ᱤ) ᱪᱟᱸᱫᱚ ᱨᱮ ᱥᱟᱧᱪᱟᱣ ᱟᱨ ᱪᱟᱸᱫᱚ ᱨᱮ ᱠᱷᱚᱨᱚᱪ ᱨᱮᱭᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

᱗. ᱢᱤᱫᱴᱟᱝ ᱪᱩᱞᱩᱝ ᱜᱟᱹᱰᱤ ᱞᱟᱲᱟᱣᱤᱡ ᱘ ᱴᱲᱟᱝ ᱨᱮ ᱘᱘ ᱠᱤ. ᱢᱤ. ᱮ ᱪᱟᱞᱟᱜ-ᱟ ᱟᱨ ᱢᱤᱫᱴᱟᱝ ᱢᱚᱴᱚᱨ ᱜᱟᱹᱰᱤ ᱞᱟᱲᱟᱣᱤᱡ ᱒ ᱴᱲᱟᱝ ᱨᱮ ᱘᱐ ᱠᱤ. ᱢᱤ. ᱦᱚᱨᱮ ᱪᱟᱞᱟᱜ-ᱟ । ᱱᱩᱠᱤᱱᱟᱜ ᱡᱩᱨ ᱪᱟᱞᱟᱜ ᱨᱮᱱᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

᱘. ᱢᱤᱫᱴᱟᱝ ᱠᱟᱹᱢᱤᱭᱟᱹ ᱢᱮᱞᱟ ᱨᱮ ᱛᱤᱨᱞᱟᱹ ᱟᱨ ᱠᱚᱲᱟ ᱠᱟᱹᱢᱤᱭᱟᱹ ᱠᱚᱣᱟᱜ ᱮᱞ ᱨᱮᱱᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱓:᱘ । ᱩᱱᱠᱩ ᱡᱚᱛᱚ ᱛᱮ ᱑᱑᱐ ᱦᱚᱲ ᱠᱷᱟᱱ ᱠᱚ, ᱚᱸᱰᱮ ᱛᱤᱱᱟᱹᱜ ᱠᱚᱲᱟ ᱟᱨ ᱛᱤᱱᱟᱹᱜ ᱛᱤᱨᱞᱟᱹ ᱠᱚ ᱠᱟᱹᱢᱤ ᱠᱟᱱᱟ ?

᱙. ᱵᱟᱹᱞᱤ ᱟᱨ ᱥᱤᱨᱢᱤᱴ ᱢᱮᱥᱟ ᱠᱟᱛᱮ ᱑᱓᱐ ᱠᱤ. ᱜᱨᱟ. । ᱢᱮᱥᱟ ᱵᱟᱹᱞᱤ ᱟᱨ ᱥᱤᱨᱢᱤᱴᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱓:᱒ ᱠᱷᱟᱱ, ᱵᱟᱹᱞᱤ ᱟᱨ ᱥᱤᱨᱢᱤᱴ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ᱛᱤᱱᱟᱹᱜ ?

᱑᱐. ᱢᱚᱥᱚᱣᱟᱜ ᱟᱨᱡᱟᱣ ᱟᱨ ᱠᱷᱚᱨᱚᱪ ᱨᱮᱱᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱒:᱓ । ᱢᱚᱥᱚᱣᱟᱜ ᱟᱨᱡᱟᱣ ᱒᱒᱐ ᱴᱟᱠᱟ ᱠᱷᱟᱱ ᱟᱡᱟᱜ ᱠᱷᱚᱨᱚᱪ ᱛᱤᱱᱟᱹᱜ ᱟᱨ ᱟᱡᱟᱜ ᱥᱟᱧᱪᱟᱣ ᱛᱤᱱᱟᱹᱜ ?

᱑᱑. ᱵᱟᱨᱮᱭᱟ ᱜᱟᱹᱰᱤᱭᱟᱜ ᱫᱟᱹᱲ ᱨᱮᱱᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱒:᱘ । ᱮᱛᱚᱦᱚᱵ ᱜᱟᱹᱰᱤᱭᱟᱜ ᱫᱟᱹᱲ ᱘ ᱴᱲᱟᱝ ᱨᱮ ᱑᱓᱐ ᱠᱤ. ᱢᱤ. ᱠᱷᱟᱱ, ᱫᱚᱥᱟᱨ ᱜᱟᱹᱰᱤᱭᱟᱜ ᱫᱟᱹᱲ ᱒ ᱴᱲᱟᱝ ᱨᱮ ᱛᱤᱱᱟᱹᱜ ᱡᱷᱟᱹᱞᱮ ᱪᱟᱞᱟᱜ-ᱟ ?

᱑᱒. ᱢᱤᱫᱴᱟᱝ ᱤᱛᱩᱱ ᱟᱥᱲᱟ ᱨᱮ ᱠᱚᱲᱟ ᱟᱨ ᱠᱩᱲᱤ ᱮᱞ ᱢᱮᱥᱟ ᱠᱟᱛᱮ ᱘᱓᱐ । ᱠᱚᱲᱟ ᱟᱨ ᱠᱩᱲᱤ ᱮᱞᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱓:᱒ । ᱡᱩᱫᱤ ᱚᱱᱟ ᱤᱛᱩᱱ ᱟᱥᱲᱟ ᱨᱮ ᱟᱨ ᱑᱒᱐ ᱦᱚᱲ ᱠᱩᱲᱤ ᱠᱚ ᱥᱮᱞᱮᱫᱚᱜ-ᱟ, ᱮᱱᱠᱷᱟᱱ ᱠᱚᱲᱟ ᱟᱨ ᱠᱩᱲᱤᱠᱚᱣᱟᱜ ᱮᱞ ᱨᱮᱱᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

᱑᱓. ᱞᱟᱛᱟᱨᱮ ᱚᱞᱮᱱ ᱨᱟᱯᱟᱝᱜᱚᱵ ᱠᱚᱣᱟᱜ ᱡᱟᱹᱱᱤ ᱚᱞ ᱯᱮ ।

(ᱚ) $\frac{᱘}{᱙}$ ᱟᱨ $\frac{᱓}{᱘}$ (ᱛ) $\frac{᱒}{᱘}$ ᱟᱨ $\frac{᱒}{᱓}$ (ᱜ) $\frac{᱑᱓}{᱒᱒}$ ᱟᱨ $\frac{᱘᱐}{᱒᱒}$

ᱡᱟᱣ ᱥᱟ.ᱭᱤ

ᱢᱤᱴᱚᱨ ᱫ ᱴᱟᱠᱟ ᱥᱚᱨᱚᱲ ᱑᱐ ᱢᱤᱴᱚᱨ ᱚᱵᱩᱟ ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱕᱐ ᱴᱟᱠᱟ ᱟᱨ ᱒᱐ ᱢᱤᱴᱚᱨ ᱚᱵᱩᱟ ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱑᱐᱐ ᱴᱟᱠᱟ ।

∴ ᱵᱟᱨ ᱴᱷᱮᱭᱟᱜ ᱚᱵᱩᱟ ᱨᱮᱭᱟᱜ ᱥᱟ.ᱭᱤ =᱑᱐:᱒᱐=᱑:᱒

ᱵᱟᱨ ᱴᱷᱮᱭᱟᱜ ᱚᱵᱩᱟ ᱨᱮᱭᱟᱜ ᱜᱚᱱᱚᱝ ᱨᱮᱭᱟᱜ

ᱥᱟ.ᱭᱤ =᱕᱐:᱑᱐᱐ = ᱑:᱒

∴ ᱑᱐:᱒᱐=᱕᱐:᱑᱐᱐ .... (᱑)

ᱞᱮᱞᱟᱨ (᱑) ᱨᱮ ᱫ ᱜᱟᱴᱟᱝ ᱮᱢ ᱵᱷᱤᱱᱚᱨᱤ ᱠᱷᱚᱭ ᱮᱚᱟᱣᱟᱵ ᱟᱨ ᱯᱚᱡᱟᱨ ᱨᱮᱭᱟᱜ ᱥᱟ.ᱭᱤ ᱯᱚ ᱚᱮᱡᱟᱨ ᱟᱨ ᱫᱩᱭᱟᱜ ᱨᱮᱭᱟᱜ ᱥᱟ.ᱭᱤ ᱡᱟᱢᱟᱜ ᱡᱚᱩᱟᱭᱟ । ᱭᱚᱝᱠᱟᱭ ᱵᱟᱨᱮᱞᱟ ᱡᱚᱩᱟᱭᱟᱭ ᱥᱟ.ᱭᱤ ᱠᱚᱯᱚ ᱩᱤᱯ ᱡᱟᱣ ᱥᱟ.ᱭᱤ ᱩᱮᱭᱚᱮᱠᱚ ᱩᱮᱭᱟ । ᱭᱚᱣᱟ ᱯᱟ.ᱞᱠᱟ. ᱨᱮ ᱑᱐, ᱒᱐, ᱕᱐ ᱟᱨ ᱑᱐᱐ ᱠᱚᱯᱚ ᱡᱟᱣ ᱥᱟ.ᱭᱤᱞᱟᱭ ᱮᱢ ᱠᱟᱭᱟ ।

᱑᱐:᱒᱐=᱕᱐:᱑᱐᱐ ᱯᱚ ᱩᱤᱯᱴᱟᱝ ᱡᱟᱣ ᱥᱟ.ᱭᱤ । ᱵᱟᱨᱮᱞᱟ ᱥᱟ.ᱭᱤ ᱚᱟᱢᱟ ᱨᱮ ᱚᱟᱣᱮᱭ ᱡᱚᱩᱟᱭ ᱞᱤᱭᱣᱟ. ᱯᱚ '᱄ ᱄' ᱞᱤᱭᱟ. ᱚᱮ ᱫᱯᱫᱜᱚᱜ-ᱟ । ᱭᱚᱣᱟ ᱯᱚ "᱑᱐ ᱟᱨ ᱕᱐ ᱞᱟᱜ ᱥᱟ.ᱭᱤ=᱕᱐ ᱟᱨ ᱑᱐᱐ ᱨᱮᱭᱟᱜ ᱥᱟ.ᱭᱤ" ᱩᱮᱭᱚᱮ ᱵᱚ ᱫᱟᱵᱣᱟᱵᱟ । ᱭᱚᱣᱟ ᱯᱚ "᱑᱐ ᱨᱮ ᱒᱐ ᱡᱚᱩᱟᱭ ᱕᱐ ᱨᱮ ᱑᱐᱐" ᱩᱮᱭᱚᱮᱣᱚ ᱫᱟᱵᱣᱟᱵᱜ-ᱟ ।

ᱥᱟ.ᱭᱤ ᱨᱮᱯᱚ ᱮᱢ ᱠᱤᱭᱟᱜ ᱫᱟ.ᱨᱤᱡ ᱩᱤᱯᱫᱜ-ᱟ । ᱩᱮᱭᱠᱥᱟᱭ ᱡᱟᱣ ᱥᱟ.ᱭᱤ ᱨᱮᱯᱚ ᱥᱟ.ᱭᱤ ᱠᱤᱭᱟᱜ ᱫᱟ.ᱨᱤᱡ ᱩᱤᱯ ᱣᱚ ᱣᱫᱞᱫᱜ-ᱟ ᱟᱨ ᱵᱟᱝ ᱣᱚ ᱣᱫᱞᱫᱜ-ᱟ ।

ᱭᱚᱣᱟ ᱯᱟ.ᱞᱠᱟ. ᱨᱮ

᱑᱐ ᱢᱤ : ᱒᱐ ᱢᱤ. : : ᱕᱐ ᱴᱟᱠᱟ : ᱑᱐᱐ ᱴᱟᱠᱟ ।

ᱭᱚᱣᱟ ᱡᱟᱣ ᱥᱟ.ᱭᱤ ᱨᱮ ᱑᱐ ᱟᱨ ᱑᱐᱐ ᱵᱟᱭᱟᱨ ᱩᱫᱞᱟ.ᱯ ᱩᱫᱞᱟ.ᱯ ᱨᱮ ᱩᱮᱭᱟᱜ ᱠᱤᱭ ᱚᱮ ᱭᱫᱠᱤᱭ ᱯᱚ ᱩᱫᱞᱟ.ᱯ ᱴᱷᱟᱣ ᱮᱢ ᱠᱚ ᱩᱮᱚᱟ ᱠᱤᱭᱟ । ᱒᱐ ᱟᱨ ᱕᱐ ᱯᱚ ᱚᱟᱢᱟ ᱨᱮᱠᱤᱭ ᱚᱟᱣᱮᱭ ᱠᱟᱭᱚᱮ ᱫᱮᱠᱤᱭ ᱯᱚ ᱚᱟᱢᱟ ᱴᱣᱟᱣ ᱮᱢ ᱠᱚ

[illegible]

[illegible] = [illegible]0×[illegible]00=[illegible]000
[illegible] = [illegible]0×[illegible]0=[illegible]000
∴ [illegible] = [illegible]

[illegible]

[illegible] : 0 = [illegible] : [illegible]

[illegible] : 0 : : [illegible] : [illegible] [illegible] $\frac{[illegible]}{0} = \frac{[illegible]}{[illegible]}$

∴ [illegible]=0[illegible]

[illegible]

[illegible] — [illegible]

[illegible]0, [illegible]0, [illegible]0, [illegible]0 [illegible] ?

[illegible]0:[illegible]0 = $\frac{[illegible]0}{[illegible]0}$ = $\frac{[illegible]}{[illegible]}$

[illegible] [illegible]0:[illegible]0 = $\frac{[illegible]0}{[illegible]0}$ = $\frac{[illegible]}{[illegible]}$

[illegible] [illegible]0:[illegible]0=[illegible]0:[illegible]0

∴ [illegible]0:[illegible]0 : : [illegible]0:[illegible]0

[illegible] — [illegible]

[illegible] ?

[illegible]

᱓ ᱟᱜ ᱚᱵᱣᱵᱭ —

ᱟᱥᱩᱨᱤᱱᱟᱢ ᱚᱟᱞᱟ ᱱᱷᱟᱣ ᱮᱞ =

$$\frac{\text{ᱩᱥᱷᱟ.ᱤ ᱱᱷᱟᱣ ᱮᱞ ᱠᱨᱮᱟᱜ ᱷᱟᱢᱟ}}{\text{ᱩᱨᱤᱱᱟᱢ ᱚᱟᱞᱟ ᱱᱷᱟᱣ ᱮᱞ}}$$

$$= \frac{᱑᱐ \times ᱓᱗᱕}{᱗᱕} = ᱕᱐$$

ᱚᱵᱫᱮ ᱗ ᱱᱷᱟᱣ ᱥᱮᱮᱟᱜ ᱮᱞ ᱤᱵ ᱕᱐ ᱠᱟᱮᱟ ᱾

᱗ ᱟᱜ ᱚᱵᱣᱵᱭ —

ᱢᱩᱤᱨ ᱗ ᱱᱷᱟᱣ ᱥᱮᱮᱟᱜ ᱮᱞ ᱵ, ᱢᱟᱣᱟᱹᱷᱨ ᱮᱵᱣᱟ ᱤᱵ

ᱫᱟᱢ ᱫᱟᱣᱟᱞ ᱮᱞ ᱠᱟᱮᱟ ᱾

$\therefore \quad \frac{᱑᱐}{ᱵ} = \frac{᱗᱕}{᱓᱗᱕} = \frac{᱑}{᱕}$

ᱟᱥᱫᱟᱢ $\frac{᱑᱐}{ᱵ} = \frac{᱑}{᱕}$

ᱟᱥᱫᱟᱢ ᱑᱐x᱕=᱑xᱵ (ᱩᱥᱷᱟ.ᱤ ᱱᱷᱟᱣ ᱮᱞ ᱠᱨᱮᱟᱜ ᱷᱟᱢᱟ=

ᱚᱟᱞᱟ ᱱᱷᱟᱣ ᱮᱞ ᱠᱨᱮᱟᱜ ᱷᱟᱢᱟ)

$\therefore \quad \frac{᱑᱐ \times ᱕}{᱑} = ᱵ$

$\therefore$ ᱵ = ᱕᱐

ᱚᱵᱫᱮ ᱗ ᱱᱷᱟᱣ ᱥᱮᱮᱟᱜ ᱮᱞ ᱤᱵ ᱕᱐ ᱾

᱑ ᱟᱜ ᱚᱵᱣᱵᱭ —

$\frac{᱑᱐}{\text{᱗ ᱱᱷᱟᱣ}} = \frac{᱗᱕}{᱓᱗᱕} = \frac{᱑}{᱕}$

$\therefore$ ᱮᱚᱵᱣᱵᱫ ᱱᱷᱟᱣ ᱑ ᱣᱟ.ᱱᱨᱩ ᱠᱷᱟᱮ ᱤᱵᱨᱟᱥ ᱱᱷᱟᱣ

᱕ ᱣᱟ.ᱱᱨᱩ ᱫᱷᱟᱜ ᱾

$\therefore$ ᱑ ᱣᱟ.ᱱᱨᱩ ᱠᱷᱟᱮ ᱑᱐

᱓ ᱣᱟ.ᱱᱨᱩ ᱠᱷᱟᱮ ᱓᱐

᱕ ᱣᱟ.ᱱᱨᱩ ᱠᱷᱟᱮ ᱕᱐

$\therefore$ ᱗ ᱱᱷᱟᱣ ᱥᱮᱤᱵ ᱕᱐ ᱾

ᱢᱤᱫ ᱵᱟᱣ ᱡᱟᱹᱱᱤᱥᱟᱱ ᱴᱥᱟᱣ ᱠᱚᱨᱮ ᱮᱴᱟᱜ ᱵᱟᱣ ᱡᱟᱹᱱᱤ ᱛᱮᱥᱟᱨ । ᱚᱱᱟ ᱵᱟᱣ ᱡᱟᱹᱱᱤ ᱫᱚ – ᱓᱐:᱔᱒=᱒᱕:᱓᱕

ᱱᱚᱹᱶᱮ ᱓᱐, ᱔᱒, ᱒᱕ ᱟᱨ ᱓᱕ ᱱᱚᱥᱠᱟᱱ ᱯᱩᱱᱤᱥᱟᱹ ᱮᱞ ᱢᱮᱱᱟᱜᱼᱟ । ᱱᱚᱣᱟ ᱠᱚ ᱤᱫᱤᱠᱟᱛᱮ ᱮᱴᱟᱜ ᱵᱟᱣ ᱡᱟᱹᱱᱤ ᱛᱮᱥᱟᱨ ᱜᱟᱱᱚᱜᱼᱟ । ᱡᱮᱞᱮᱠ –

$$\frac{᱓᱐}{᱔᱒} = \frac{᱒᱕}{᱓᱕} \therefore ᱓᱐ \times ᱓᱕ = ᱒᱕ \times ᱔᱒$$

(᱑) ᱓᱐:᱒᱕ = ᱔᱒:᱓᱕ (ᱥᱤᱵᱟᱹᱥ ᱠᱟᱛᱮ ᱪᱮᱞᱢᱟ)

(᱒) ᱒᱕:᱓᱐ = ᱓᱕:᱔᱒ (ᱥᱤᱵᱟᱹᱥ ᱠᱟᱛᱮ ᱪᱮᱞᱢᱟ)

(᱓) ᱔᱒:᱓᱐ = ᱓᱕:᱒᱕ (ᱥᱤᱵᱟᱹᱥ ᱠᱟᱛᱮ ᱪᱮᱞᱢᱟ)

ᱧᱟᱹᱥᱠᱟ. – ᱑

᱔᱐ ᱕᱐ ᱖᱐ ᱗᱕ ᱠᱚ ᱤᱫᱤ ᱠᱟᱛᱮ ᱡᱟᱦᱟᱸ ᱛᱤᱱᱟᱹᱜ ᱜᱮ ᱦᱩᱥᱩᱜ ᱵᱟᱣ ᱡᱟᱹᱱᱤ ᱛᱮᱥᱟᱨ ᱯᱮ ।

᱔᱐x᱗᱕=᱓᱐᱐᱐

᱕᱐x᱖᱐=᱓᱐᱐᱐

∴ ᱔᱐x᱗᱕=᱕᱐x᱖᱐

∴ ᱔᱐ ᱕᱐ ᱖᱐ ᱗᱕ ᱫᱚ ᱵᱟᱣ ᱡᱟᱹᱱᱤᱥᱟᱱ ᱠᱟᱱᱟ ।

ᱟᱥᱚ ᱛᱤᱛᱥᱚ ᱥᱟᱜᱟᱨ ᱢᱟ –

᱔᱐x᱗᱕=᱕᱐x᱖᱐ ∴ ᱔᱐:᱕᱐=᱖᱐:᱗᱕ ..... (᱑)

᱔᱐x᱗᱕=᱖᱐x᱕᱐ ∴ ᱔᱐:᱖᱐=᱕᱐:᱗᱕ ..... (᱒)

᱗᱕x᱔᱐=᱕᱐x᱖᱐ ∴ ᱗᱕:᱕᱐=᱖᱐:᱔᱐ ..... (᱓)

᱗᱕x᱔᱐=᱖᱐x᱕᱐ ∴ ᱗᱕:᱖᱐=᱕᱐:᱔᱐ ..... (᱔)

∴ ᱔᱐, ᱕᱐, ᱖᱐ ᱟᱨ ᱗᱕ ᱠᱚ ᱯᱩᱱᱤᱥᱟᱹ ᱵᱟᱣ ᱡᱟᱹᱱᱤ ᱥᱮᱮᱱ ᱜᱟᱱᱚᱜᱼᱟ ।

ᱧᱟᱹᱥᱠᱟ. – ᱒

ᱢᱤᱫᱴᱟᱝ ᱤᱥᱠᱩᱞ ᱟᱹᱰᱟ ᱫᱮ ᱠᱚᱲᱟ ᱟᱨ ᱠᱩᱲᱤ ᱮᱞ ᱵᱮᱱᱟᱜ ᱡᱟᱹᱱᱤ ᱫᱚ ᱔:᱓ । ᱠᱚᱲᱟ ᱮᱞ ᱑᱒᱐ ᱠᱚᱥᱟᱭ ᱠᱩᱲᱤ ᱮᱞ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

᱑ ᱱᱚᱜ ᱛᱚᱨᱤᱠᱟ –

ᱠᱚᱲᱟ : ᱠᱩᱲᱤ = ᱔ : ᱓

ᱠᱚᱲᱟ ᱮᱞ ᱔ ᱜᱩᱱ ᱠᱚᱥᱟᱭ ᱠᱩᱲᱤ ᱮᱞ ᱓ ᱜᱩᱱ

ପ୍ରଥମ ରାଶି ୧୨୦

୪ ଭାଗ ସମାନ ୧୨୦

୧ ଭାଗ ସମାନ ୧୨୦÷୪=୩୦

୩ ଭାଗ ସମାନ ୩୦×୩=୯୦

∴ ଦ୍ୱିତୀୟ ରାଶି = ୯୦

୨ ଅନ୍ୟ ପଦ୍ଧତି –

ପ୍ରଥମ : ଦ୍ୱିତୀୟ = ୪ : ୩ = $\frac{୪}{୩}$

ଦ୍ୱିତୀୟ ରାଶି ଜଣା ନାହିଁ

∴ ମନେକର ତାହା 'କ'

ପ୍ରଶ୍ନାନୁସାରେ ୧୨୦ : କ = ୪ : ୩

ଭଗ୍ନାଂଶରେ $\frac{୧୨୦}{କ} = \frac{୪}{୩}$

୧୨୦×୩ = ୪କ

∴ କ = $\frac{୧୨୦×୩}{୪}$ = ୯୦

∴ ଦ୍ୱିତୀୟ ରାଶି ହେଲା ୯୦ ।

ଅଭ୍ୟାସ ପ୍ରଶ୍ନ

୧. ନିମ୍ନଲିଖିତ ଅନୁପାତ ସମାନୁପାତରେ ଅଛି କି ?

(କ) ୧୫ : ୨୦ = ୩୦ : ୪୦

(ଖ) ୩୯ : ୨୬ = ୩୬ : ୨୪

(ଗ) ୫୫ ଘ.ମି. : ୨୫୦ ଘ.ମି. = ୮୮ ମିଟର : ୪୦୦ ମିଟର

(ଘ) ୧୮ ବ.ମି. : ୧୧୨ ବ.ମି. = ୯୬ ଟଙ୍କା : ୧୬୨ ଟଙ୍କା

୨. ନିମ୍ନ ରାଶି ଗୁଡ଼ିକ ସମାନୁପାତରେ ଅଛି କି ?

(କ) ୧୫, ୧୮, ୫, ୬

(ଖ) ୬, ୧୮, ୮, ୨୪

(ଗ) ୪୦, ୧୮, ୮

(ଘ) ୮, ୧୬, ୩୨

(ଙ) ୨୨୦, ୨୬୦, ୩୦, ୩୬୦

(ଚ) ୬୪, ୨୨, ୩୯, ୧୦୩

᱓. ᱠᱤᱥᱱᱟᱛ ᱥᱟᱣ ᱡᱟ.ᱮᱤ ᱢᱮ ᱒ ᱫᱤᱱ, ᱨ ᱫᱤᱱ ᱟᱨ ᱖ ᱫᱤᱱ ᱦᱚᱲᱟᱣ ᱠᱚᱨᱮᱫ ᱠᱤᱥ ᱚᱷᱢᱚᱨ ᱑᱒, ᱑᱕ ᱟᱨ ᱒᱐ ᱠᱷᱟᱱᱮ ᱓ ᱫᱤᱱ ᱦᱚᱲᱟᱣ ᱪᱮᱫ ᱚᱤᱮᱟ.ᱜ ᱫᱟᱯᱛᱟᱵ ᱢᱮ ।

᱔. ᱵ ᱫᱟᱢ ᱣ ᱦᱚᱲᱮ ᱠᱮᱮᱟᱜ ᱦᱟᱵᱟ ᱢᱮᱮᱟᱜ ᱡᱟ.ᱮᱤ ᱪᱮᱫ ᱨ:᱓ । ᱵ ᱫᱤᱱ ᱪᱮᱫ ᱓᱐ ᱦᱟᱵᱟ ᱠᱷᱟᱱᱮ ᱣ ᱫᱤᱱ ᱦᱟᱵᱟ ᱪᱮᱫ ᱚᱤᱮᱟ.ᱜ ?

᱕. ᱑᱐᱕, ᱑᱒᱐, ᱑᱖᱘, ᱑᱕᱒ ᱠᱚ ᱤᱪᱤ ᱠᱟᱚᱮ ᱚᱤᱮᱟ.ᱜ ᱥᱟᱣ ᱡᱟ.ᱮᱤ ᱚᱮᱞᱟᱢ ᱪᱟᱫᱮᱞᱟᱜ-ᱟ ।

᱖. ᱯᱟᱚᱟᱢ ᱥᱟᱣ ᱡᱟ.ᱮᱤ ᱠᱚ ᱤᱪᱤ ᱠᱟᱚᱮ ᱨᱦᱟᱜ ᱓ᱞᱟ ᱥᱟᱣ ᱡᱟ.ᱮᱤ ᱚᱮᱞᱟᱢ ᱢᱮ ।

(ᱚ) ᱕᱐ : ᱔᱐ = ᱓᱕ : ᱒᱘

(ᱟ) ᱑᱖ : ᱒᱔ = ᱕᱒ : ᱒᱘

᱗. (ᱚ) ᱖, ᱕, ᱑᱒ ᱨᱯᱟᱜ ᱔ᱟᱜ ᱥᱟᱣ ᱡᱟ.ᱮᱤᱞᱟᱮ ᱚᱯ ᱢᱮ

(ᱟ) $\frac{᱑}{᱒}$, $\frac{᱔}{᱓}$, $\frac{᱘}{᱑᱕}$ ᱢᱮᱞᱟᱜ ᱓ᱟᱜ ᱥᱟᱣ ᱡᱟ.ᱮᱤᱞᱟᱮ ᱫᱟᱯᱛᱟᱵ ᱢᱮ

᱘. ᱥᱷᱢᱷ ᱟᱢ ᱠᱟ.ᱞᱯᱷ ᱦᱚᱲᱮ ᱠᱮᱮᱟᱜ ᱦᱟᱵᱟ ᱢᱮᱮᱟᱜ ᱡᱟ.ᱮᱤ ᱠᱟ.ᱢᱷ ᱟᱢ ᱥᱷᱜᱪᱟ. ᱚᱤᱵᱤᱮᱟᱜ ᱦᱟᱵᱟ ᱢᱮᱮᱟᱜ ᱡᱟ.ᱮᱤ ᱥᱟᱣ ᱥᱚᱠᱟᱮᱟ । ᱥᱷᱢᱷ ᱦᱚᱲᱮ ᱕᱐ ᱦᱟᱵᱟ, ᱥᱷᱜᱪᱟ. ᱦᱚᱲᱮ ᱒᱐᱐ ᱦᱟᱵᱟ ᱟᱢ ᱠᱟ.ᱢᱷ ᱦᱚᱲᱮ ᱔᱐ ᱦᱟᱵᱟ ᱠᱮᱮᱟᱜ ᱠᱷᱟᱱᱮ ᱠᱟ.ᱞᱯᱷ ᱦᱚᱲᱮ ᱪᱮᱫ ᱚᱤᱮᱟ.ᱜ ᱦᱟᱵᱟ ᱠᱮᱮᱟᱜ-ᱟ ?

ᱥᱟᱣᱟᱢ ᱚᱮᱣᱮᱢ –

᱕ ᱞᱤ. ᱯᱷᱜᱨᱫᱤ ᱢᱮᱮᱟᱜ ᱜᱮᱮᱮᱥ ᱦᱟ. ᱕᱑.᱐᱐ ᱠᱷᱟᱱᱮ ᱑᱒ ᱞᱤ. ᱯᱷᱜᱨᱫᱤ ᱢᱮᱮᱟᱜ ᱜᱮᱮᱮᱥ ᱪᱮᱫ ᱚᱤᱮᱟ.ᱜ ?

᱕ ᱞᱤ. ᱯᱷᱜᱨᱫᱤ ᱢᱮᱮᱟᱜ ᱜᱮᱮᱮᱥ = ᱦᱟ. ᱕᱑.᱐᱐

᱑ ᱞᱤ. ᱯᱷᱜᱨᱫᱤ ᱢᱮᱮᱟᱜ ᱜᱮᱮᱮᱥ = ᱦᱟ. ᱕᱑÷᱕

=ᱦᱟ. ᱑᱐.᱒᱐

᱑᱒ ᱞᱤ. ᱯᱷᱜᱨᱫᱤ ᱢᱮᱮᱟᱜ ᱜᱮᱮᱮᱥ = ᱦᱟ. ᱑᱐.᱒᱐x᱑᱒

= ᱦᱟ. ᱑᱒᱒.᱔᱐

[illegible]

[illegible]

(a) [illegible] 220.00 [illegible]

(b) [illegible]

[illegible] 220.00 [illegible]

$\therefore$ [illegible]

(b) [illegible] 220.00 [illegible]

$\frac{[illegible]}{220}$ [illegible]

$\frac{[illegible]}{220}$ [illegible]

$\therefore$ [illegible]

[illegible]

(a) [illegible] ?

(b) [illegible] ?

[illegible] –

[illegible]

[illegible]

[illegible]

= [illegible]

[illegible]

= [illegible]

[illegible] –

[illegible]

[illegible] –

(a) [illegible]

(b) [illegible]

= [illegible]

∴ [illegible]

[illegible]

1. [illegible]
2. [illegible]
3. [illegible]

ᱠᱤ. ᱢᱤ. ᱮ ᱥᱮᱱᱟᱹᱩᱜᱼᱟ ?

᱔. ᱢᱤᱫ ᱦᱚᱲ ᱜ ᱡᱟᱸᱜᱚ ᱨᱮ ᱴᱟ. ᱒᱒᱘᱐.᱐᱐ ᱠᱥᱚᱟᱹᱞᱼᱮ ᱧᱟᱢᱟ ᱾ ᱥᱮᱱ ᱦᱚᱲ –
(ᱚ) ᱑᱕ ᱡᱟᱸᱜᱚ ᱨᱮ ᱵᱤᱞᱟᱹᱜᱼᱮ ᱠᱥᱚᱟᱹᱞᱚᱜᱼᱟ ?
(ᱛ) ᱵᱤᱞᱟᱹᱜ ᱡᱟᱸᱜᱚᱨᱮ ᱴᱟ. ᱒᱕᱙᱐.᱐᱐ ᱠᱥᱚᱟᱹᱞᱮ ᱧᱟᱢᱟ ?

᱕. ᱢᱤᱫ ᱦᱚᱲᱟᱜ ᱮ ᱢᱟᱦᱟᱸ ᱨᱮ ᱴᱟ. ᱘᱖.᱒᱐ ᱮ ᱟᱥᱩᱞᱟ ᱾ ᱑᱘ ᱢᱟᱦᱟᱸ ᱨᱮ ᱥᱮᱱ ᱵᱤᱞᱟᱹᱜᱼᱮ ᱟᱥᱩᱞᱟ ?

᱖. ᱑᱕ ᱜᱚᱴᱟᱡ ᱢᱮᱥᱚᱢᱟᱜ ᱜᱚᱞᱚᱡ ᱴᱟ. ᱘᱕᱙᱐.᱐᱐ ᱾ ᱴᱟ. ᱙᱐᱐᱐.᱐᱐ ᱨᱮ ᱵᱤᱞᱟᱹᱜ ᱢᱮᱥᱚᱢ ᱠᱚ ᱠᱤᱥᱤᱧᱚᱜᱼᱟ ?

᱗. ᱘ ᱦᱚᱲ ᱢᱤᱫᱴᱟᱹᱝ ᱠᱟᱹᱢᱤ ᱘᱘ ᱢᱟᱦᱟᱸ ᱨᱮᱠᱚ ᱪᱟᱹᱵᱟ ᱾ ᱑᱒ ᱦᱚᱲ ᱚᱞᱟ ᱠᱟᱹᱢᱤ ᱵᱤᱞᱟᱹᱜ ᱡᱤᱞ ᱨᱮᱠᱚ ᱪᱟᱹᱵᱟ ?

᱘. ᱑᱐ ᱮᱠᱚᱨ ᱢᱟ.ᱡᱫ ᱠᱚᱟᱚᱞ ᱘᱐᱐ ᱠᱥᱸᱨᱴᱟᱯ ᱦᱚᱲᱚ ᱧᱟᱢᱚᱜᱼᱟ ᱾ ᱵᱤᱞᱟᱹᱜ ᱮᱠᱚᱨ ᱢᱟ.ᱡᱫ ᱠᱚᱟᱚᱞ ᱑᱘᱐ ᱠᱥᱸᱨᱴᱟᱯ ᱦᱚᱲᱚ ᱧᱟᱢᱚᱜᱼᱟ ?

᱙. ᱢᱤᱫᱴᱟᱹᱝ ᱪᱟᱡᱚᱢ ᱑᱘ ᱢᱟᱦᱟᱸᱨᱮ ᱑᱘᱐ ᱠᱤ. ᱜᱟᱨ. ᱡᱚᱞᱯᱟᱨ ᱢᱚᱢᱟ ᱾ ᱘᱘᱐ ᱠᱤ. ᱢᱤ. ᱡᱚᱞᱯᱟᱨ ᱢᱚᱢ ᱯᱟ.ᱜᱤᱡ ᱵᱤᱞᱟᱹᱜ ᱡᱤᱞ ᱯᱟᱜᱮᱟᱥ ᱟᱨᱟ ?

᱑᱐. ᱢᱤᱫᱴᱟᱹᱝ ᱢᱚᱴᱚᱨ ᱜᱟ.ᱥᱤ ᱮ $\frac{᱑}{᱒}$ ᱴᱟᱸᱴᱟᱝ ᱨᱮ ᱘᱘᱐ ᱠᱤ. ᱢᱤ. ᱡᱟᱯᱟᱜᱼᱟ ᱾ ᱖᱖᱐ ᱠᱤ. ᱢᱤ. ᱦᱚᱨ ᱡᱟᱯᱟᱜ ᱯᱟ.ᱜᱤᱡ ᱵᱤᱞᱟᱹᱜ ᱚᱠᱚᱵᱚ ᱯᱟᱜᱮᱟᱥ ᱟᱨᱟ ?

᱑᱑. ᱘᱘ ᱦᱚᱲ ᱢᱤᱫᱴᱟᱹᱝ ᱠᱟ.ᱢᱤ ᱘᱕ ᱢᱟᱦᱟᱸ ᱨᱮᱠᱚ ᱪᱟ.ᱵᱟ ᱾ ᱵᱤᱞᱟᱹᱜ ᱦᱚᱲ ᱚᱞᱟ ᱠᱟ.ᱢᱤ ᱖᱕ ᱢᱟᱦᱟᱸ ᱨᱮᱠᱚ ᱪᱟ.ᱵᱟ ?

᱑᱒. ᱡᱤᱞᱟᱹᱢ ᱕ ᱴᱟᱸᱴᱟᱝ ᱡᱟ.ᱯᱥ ᱠᱟᱵᱮ ᱢᱤᱫᱴᱟᱹᱝ ᱡᱟᱜ ᱢᱤᱪᱤᱞ ᱢᱤᱫᱴᱟᱹᱝ ᱢᱚ.ᱡᱫ ᱑᱖ ᱢᱟᱦᱟᱸ ᱨᱮ ᱢᱚᱠᱤᱢᱟ.ᱩᱜᱟ ᱾ ᱚᱞᱟ ᱢᱤᱪᱤᱞ ᱡᱤᱞᱟᱹᱢ ᱮ ᱴᱟᱸᱴᱟᱝ ᱡᱟ.ᱯᱥ ᱯᱮᱨᱮ ᱚᱞᱟ ᱢᱚ.ᱡᱫ ᱵᱤᱞᱟᱹᱜ ᱢᱟᱦᱟᱸ ᱨᱮ ᱢᱚᱠᱤᱢᱟ.ᱩᱟ ?

᱑᱓. ᱢᱤᱫᱴᱟᱹᱝ ᱫᱟ.ᱞᱤᱫ ᱵᱮ ᱑᱕ ᱜᱚᱴᱟᱡ ᱤᱥᱮᱥᱢ ᱴᱟ:ᱠᱤ ᱑᱐ ᱴᱟᱸᱴᱟᱝ ᱨᱮ ᱫᱮᱨᱮᱢᱟ ᱾ ᱚᱞᱟ ᱫᱟ.ᱞᱤᱫ ᱵᱮ ᱘᱖ ᱴᱟᱸᱴᱟᱝ ᱨᱮ ᱵᱤᱞᱟᱹᱜ ᱤᱥᱮᱥᱢ ᱴᱟ:ᱜᱤ ᱫᱮᱨᱮᱢᱟ ?

$$= \frac{᱕᱖}{᱗᱐} = \frac{᱔}{᱕}$$

$$= \frac{᱕᱐}{᱖᱐} = \frac{᱕}{᱖}$$

$$\frac{᱓}{᱔} = \frac{᱓ \times ᱕}{᱔ \times ᱕} = \frac{᱑᱕}{᱒᱐} \qquad \frac{᱔}{᱕} = \frac{᱔ \times ᱔}{᱕ \times ᱔} = \frac{᱑᱖}{᱒᱐}$$

$\frac{᱑᱕}{᱒᱐}$ ᱟᱨ $\frac{᱑᱖}{᱒᱐}$ ᱨᱮ ᱦᱟᱹᱴᱤᱧ ᱫᱚ ᱥᱚᱢᱟᱱ ᱾ ᱛᱩᱞᱟᱹ ᱡᱚᱠᱷᱟᱹ ᱞᱮᱠᱷᱟᱨᱮ ᱦᱟᱹᱴᱤᱧ ᱠᱷᱚᱱ ᱛᱮ ᱵᱟᱲᱛᱤ ᱜᱮᱭᱟ, $\frac{᱑᱖}{᱒᱐} > \frac{᱑᱕}{᱒᱐}$ ᱾ ᱚᱱᱟᱛᱮ ᱠᱷᱚᱱ ᱫᱚ ᱵᱟᱲᱛᱤ ᱜᱮᱭᱟ 'ᱵ' ᱥᱤᱫᱽ ᱨᱮᱱᱟᱜ ᱱᱚᱢᱵᱚᱨ ᱠᱷᱚᱱ ᱵᱟᱲᱛᱤ ᱜᱮᱭᱟ ᱾

$\frac{᱑᱕}{᱒᱐}$ ᱟᱨ $\frac{᱑᱖}{᱒᱐}$ ᱨᱮᱱᱟᱜ ᱦᱟᱹᱴᱤᱧ ᱥᱟᱵᱟᱜ ᱫᱚ ᱒᱐, ᱑᱐᱐ ᱥᱟᱸ ᱵᱚᱫᱚᱞ ᱨᱮᱫᱚᱢ ᱨᱮᱱᱟᱜ ᱦᱟᱹᱴᱤᱧ ᱥᱟᱵᱟᱜ ᱞᱮᱠᱷᱟ ᱵᱚ ᱥᱚᱫᱚᱭ ᱫᱟᱲᱮᱭᱟᱜ-ᱟ ᱾

$$\frac{᱑᱕}{᱒᱐} = \frac{᱑᱕ \times ᱕}{᱒᱐ \times ᱕} = \frac{᱗᱕}{᱑᱐᱐} \qquad \frac{᱑᱖}{᱒᱐} = \frac{᱑᱖ \times ᱕}{᱒᱐ \times ᱕} = \frac{᱘᱐}{᱑᱐᱐}$$

ᱚᱱᱟᱛᱮ $\frac{᱘᱐}{᱑᱐᱐} > \frac{᱗᱕}{᱑᱐᱐}$, ᱡᱮᱢᱚᱱ ᱵᱟᱲᱛᱤ ᱜᱮᱭᱟ ᱠᱷᱚᱱ ᱫᱚ, 'ᱵ' ᱥᱤᱫᱽ ᱨᱮᱱᱟᱜ ᱱᱚᱢᱵᱚᱨ 'ᱟ' ᱥᱤᱫᱽ ᱨᱮᱱᱟᱜ ᱱᱚᱢᱵᱚᱨ ᱠᱷᱚᱱ ᱵᱟᱲᱛᱤ ᱜᱮᱭᱟ ᱾

$\frac{᱗᱕}{᱑᱐᱐}$ ᱫᱚ ᱵᱟᱝ ᱥᱟᱭ ᱨᱮ 'ᱯᱨᱚᱛᱤᱥᱚᱭ ᱗᱕' ᱟᱨᱵᱟᱝ ᱗᱕% ᱥᱟᱭᱠᱚᱨᱟ ᱞᱟᱹᱭᱚᱜ-ᱟ ᱾ $\frac{᱘᱐}{᱑᱐᱐}$ ᱫᱚ ᱵᱟᱝ ᱥᱟᱭ ᱨᱮ 'ᱯᱨᱚᱛᱤᱥᱚᱭ ᱘᱐' ᱟᱨᱵᱟᱝ ᱘᱐% ᱥᱟᱭᱠᱚᱨᱟ ᱞᱟᱹᱭᱚᱜ-ᱟ ᱾ % ᱫᱚ ᱯᱨᱚᱛᱤᱥᱚᱭ ᱵᱮᱜᱟᱨ ᱥᱟᱭᱠᱚᱨᱟ ᱵᱟᱝ ᱥᱟᱭ ᱾

ᱟᱹᱰᱤᱛᱮ ᱮᱞ ᱨᱮ 'ᱵ' ᱥᱤᱫᱽ ᱫᱚ ᱘᱐% ᱧᱟᱢᱠᱮᱫᱟ ᱾ ᱟᱨ 'ᱟ' ᱥᱤᱫᱽ ᱫᱚ ᱗᱕% ᱧᱟᱢᱠᱮᱫᱟ ᱾ ᱱᱚᱢᱵᱚᱨ ᱨᱮᱱᱟᱜ ᱠᱷᱚᱱ ᱞᱮᱠᱷᱟ ᱾

ᱯᱨᱚᱛᱤᱥᱚᱭ ᱘᱐ ᱟᱨᱵᱟᱝ ᱘᱐% ᱨᱮᱱᱟᱜ ᱥᱟᱭᱠᱚᱨᱟ ᱑᱐᱐ ᱠᱷᱚᱱ ᱘᱐ ᱾ ᱯᱨᱚᱛᱤᱥᱚᱭ ᱗᱕ ᱟᱨᱵᱟᱝ ᱗᱕% ᱨᱮᱱᱟᱜ ᱥᱟᱭᱠᱚᱨᱟ ᱑᱐᱐ ᱠᱷᱚᱱ ᱗᱕ ᱾

[illegible]

[illegible]

$80\% = \frac{80}{100} = 80 : 100$

$25\% = \frac{25}{100} = 25 : 100$

[illegible] 700 [illegible] 497 [illegible]

[illegible]

[illegible] 700 [illegible] 497

[illegible] 100 [illegible] $\frac{497}{700} \times 100$

$= \frac{497}{7} = 71$

[illegible] 71% [illegible]

[illegible]

[illegible] – 1

[illegible] 70%, 50%, 28% [illegible] $7\frac{1}{2}\%$ [illegible]

$70\% = \frac{70}{100} = \frac{7}{10}$ $50\% = \frac{50}{100} = \frac{1}{2}$

$28\% = \frac{28}{100} = \frac{7}{25}$

$7\frac{1}{2}\% = \frac{7\frac{1}{2}}{100} = \frac{15}{2 \times 100} = \frac{15}{200} = \frac{3}{40}$

[illegible] – 2

[illegible] 15%, 98% [illegible] 45% [illegible]

$᱑᱕\% = \frac{᱑᱕}{᱑᱐᱐} = \frac{᱓}{᱒᱐} = ᱓ : ᱒᱐$

$᱔᱓\% = \frac{᱔᱓}{᱑᱐᱐} = ᱔᱓ : ᱑᱐᱐$

$᱖᱘\% = \frac{᱖᱘}{᱑᱐᱐} = \frac{᱑᱗}{᱒᱕} = ᱑᱗ : ᱒᱕$

ᱩᱫᱟ.ᱦᱚᱨ. — ᱓

᱒᱕% ᱟᱨ ᱗᱕% ᱨᱮᱭᱟᱜ ᱫᱚᱥᱢᱤᱠ ᱦᱤᱥᱟᱹᱵ ᱛᱮ ᱚᱞ ᱢᱮ ।

$᱒᱕\% = \frac{᱒᱕}{᱑᱐᱐} = ᱐.᱒᱕$

$᱗᱕\% = \frac{᱗᱕}{᱑᱐᱐} = ᱐.᱗᱕$

ᱪᱮᱛᱟᱱ ᱨᱮ ᱮᱢᱮᱱ ᱩᱫᱟ.ᱦᱚᱨ. ᱠᱷᱚᱱ ᱵᱟᱰᱟᱭᱚᱜ ᱠᱟᱱᱟ

(᱑) ᱥᱟᱭᱮᱛᱟᱜ ᱢᱟᱱᱚᱛ ᱵᱷᱟᱜᱟᱹᱣᱟᱱ ᱵᱮᱱᱟᱣ ᱦᱩᱭᱩᱜ ᱠᱟᱱᱟ, ᱥᱟᱭᱮᱛᱟᱜ ᱪᱤᱱᱦᱟᱹ (%) ᱨᱮᱭᱟᱜ ᱢᱟᱱᱮ ᱠᱟᱱᱟ ᱥᱟᱭ ᱑᱐᱐ ᱛᱮ ᱦᱟᱹᱴᱤᱧ ᱟᱠᱟᱱ ᱾ ᱵᱷᱟᱜᱟᱹᱣᱟᱱ ᱨᱮᱭᱟᱜ ᱦᱚᱨᱟ ᱵᱮᱱᱟᱣ ᱥᱟᱭᱮᱛᱟᱜ ᱾

(᱒) ᱥᱟᱭᱮᱛᱟᱜ ᱢᱟᱱᱚᱛ ᱢᱟᱱᱚᱛ ᱛᱮ ᱵᱮᱱᱟᱣᱜ ᱠᱟᱱᱟ, ᱮᱱᱠᱷᱟᱱ ᱥᱟᱭᱮᱛᱟᱜ ᱪᱤᱱᱦᱟᱹ (%) ᱨᱮᱭᱟᱜ ᱢᱟᱱᱮ ᱠᱟᱛᱮ ᱮᱛᱚᱦᱚᱵ ᱮᱞ ᱟᱨ ᱑᱐᱐ ᱨᱮᱭᱟᱜ ᱮᱛᱚᱦᱚᱵ ᱮᱞ ᱦᱚᱨᱟ ᱛᱮ ᱠᱟᱱᱟ ᱢᱟᱱᱚᱛ ᱛᱮᱨᱤᱭᱟᱜ ᱦᱟᱹᱴᱤᱧᱜ ᱠᱟᱱᱟ ᱾ ᱱᱚᱶᱟ ᱢᱟᱱᱚᱛ ᱨᱮᱭᱟᱜ ᱥᱟᱱᱟᱢᱮᱱ ᱛᱟᱛᱤᱭᱟ ᱛᱮ ᱥᱟᱭᱮᱛᱟᱜ ᱾

(᱓) ᱥᱟᱭᱮᱛᱟᱜ ᱢᱟᱱᱚᱛ ᱫᱚᱥᱢᱤᱠ ᱦᱤᱥᱟᱹᱵ ᱛᱮ ᱵᱮᱱᱟᱣᱜ ᱠᱟᱱᱟ, ᱥᱟᱭᱮᱛᱟᱜ ᱪᱤᱱᱦᱟᱹ (%) ᱨᱮᱭᱟᱜ ᱢᱟᱱᱮᱭᱟᱜ ᱠᱟᱱᱟ ᱟᱨ ᱫᱚᱥᱢᱤᱠ ᱦᱤᱥᱟᱹᱵ ᱨᱮᱭᱟᱜ ᱯᱩᱭᱞᱩ ᱵᱟᱭᱟᱨ ᱥᱮᱛᱟᱜ ᱛᱟᱨᱮ ᱢᱟᱨᱟᱝ ᱪᱟᱞᱟᱜ ᱠᱟᱱᱟ ᱾

ଅଭ୍ୟାସ ପ୍ରଶ୍ନ

୧. ସାଧାରଣ ଭଗ୍ନାଂଶରେ ପରିଣତ କର ।

୩୫%, ୪୦%, ୨୨%, ୧୩$\frac{୧}{୨}$%, ୩$\frac{୧}{୫}$%

୨. ଦଶମିକରେ ପରିଣତ କର ।

୨୦%, ୩୪%, ୨୨%, ୬୫%, ୧୫$\frac{୩}{୪}$%

୩. ଲଘିଷ୍ଠ ଆକାରରେ ଅନୁପାତରେ ପରିଣତ କର ।

୩୨%, ୧୩%, ୪୨%, ୫୫%

୪. ଶୂନ୍ୟସ୍ଥାନ ପୂରଣ କର ।

(କ) ୪୫% = $\frac{......}{୧୦୦}$ (ଙ) ୧୨$\frac{୨}{୫}$% = $\frac{୬୨}{......}$

(ଖ) ୧୩% = $\frac{......}{୧୦୦}$ (ଚ) ୩୫% = ୧୨ : ....

(ଗ) ୫$\frac{୨}{୩}$% = $\frac{୧୭}{......}$ (ଛ) ୨୦% = ... : ୧୦

(ଘ) ...... % = $\frac{୨୨}{୧୦୦}$ (ଜ) ...... % = ୦.୩୫

ଭଗ୍ନାଂଶକୁ, ଦଶମିକ ସଂଖ୍ୟାକୁ ଶତକଡ଼ାରେ ପରିଣତ କରିବା –

ଉଦାହରଣ – ୧

$\frac{୩}{୪}$ କୁ ଶତକଡ଼ାରେ ପରିଣତ କର ।

୧ମ ପ୍ରଣାଳୀ –

$\frac{୩}{୪} = \frac{୩ \times ୨୫}{୪ \times ୨୫} = \frac{୭୫}{୧୦୦} = ୭୫\%$

୨ୟ ପ୍ରଣାଳୀ –

ଏଠାରେ $\frac{୩}{୪}$ ଭଗ୍ନାଂଶଟିର ୪ ହେଉଛି ହର ଓ ୩ ହେଉଛି ଲବ

[illegible] $\frac{1}{4}$ [illegible] 100 [illegible] $\frac{1}{4} \times 100$
= 25 [illegible]

∴ 100 [illegible] 25 [illegible] = 25%

[illegible] $\frac{1}{4}$ [illegible]
[illegible] $(\frac{1}{4} \times 100)\%$ [illegible] ।

[illegible] $\frac{a}{b}$ [illegible]
[illegible] $(\frac{a}{b} \times 100)\%$ [illegible] ।

[illegible] 100 [illegible] % [illegible] ।

[illegible] — 1

(a) 4 : 5 [illegible] ।

$4 : 5 = \frac{4}{5} = (\frac{4}{5} \times 100)\% = (\frac{400}{5})\% = 80\%$

(b) 60 : 90 [illegible] ।

$60 : 90 = \frac{60}{90} = \frac{2}{3} = (\frac{2}{3} \times 100)\% = (\frac{200}{3})\% = 66\frac{2}{3}\%$

[illegible] 100 [illegible] % [illegible] ।

[illegible] — 2

0.52, 0.025 [illegible] ।

(a) $0.52 = (\frac{52}{100} \times 100)\% = 52\%$

(b) $0.025 = \frac{25}{1000} = (\frac{25}{1000} \times 100)\% = \frac{25}{10}\% = 2.5\%$

[illegible]

[illegible]

1. [illegible]

   [illegible]

2. [illegible]

   [illegible]

3. [illegible]

   [illegible]

4. [illegible]

   ([illegible]) [illegible]% = [illegible] = [illegible] ([illegible]) [illegible] = [illegible] = ... %

   ([illegible]) [illegible] : [illegible] = [illegible] = ([illegible] x ....)% = ... %

   ([illegible]) [illegible] : [illegible] = ...%

   ([illegible]) [illegible] = = ...%

   ([illegible]) [illegible] = [illegible] = ([illegible] x ....)% = ...%

[illegible] –

[illegible] – [illegible]

([illegible]) [illegible]% [illegible] ?

[illegible] – [illegible]%

$$= ᱴᱟ.\ ᱓᱒᱐.᱐᱐ \times \frac{᱓᱐}{᱑᱐᱐}$$

$$= \frac{ᱴᱟ.\ ᱓᱒᱐ \times ᱓᱐}{᱑᱐᱐} = ᱴᱟ.\ ᱓᱒ \times ᱓$$

$$= ᱴᱟ.\ ᱙᱖.᱐᱐$$

(ᱠ) ᱕ ᱢᱤ. ᱖᱐ ᱥᱮ. ᱢᱤ. ᱨᱮᱭᱟᱜ ᱒᱕% ᱛᱤᱱᱟᱹᱜ ?

ᱡᱟᱹᱣᱟᱹᱵ – ᱕ ᱢᱤ. ᱖᱐ ᱥᱮ. ᱢᱤ. ᱨᱮᱭᱟᱜ ᱒᱕%

$$= (᱕\ ᱢᱤ.\ ᱖᱐\ ᱥᱮ.\ ᱢᱤ.) \times \frac{᱒᱕}{᱑᱐᱐}$$

$$= (᱕\ ᱢᱤ.\ ᱖᱐\ ᱥᱮ.\ ᱢᱤ) \times \frac{᱑}{᱔}$$

$$= ᱑\ ᱢᱤ.\ ᱔᱐\ ᱥᱮ.\ ᱢᱤ.$$

(ᱡ) ᱓ ᱴᱟᱠᱟ ᱓᱐ ᱯᱟᱭᱥᱟ ᱨᱮᱭᱟᱜ ᱒᱐% ᱛᱤᱱᱟᱹᱜ ?

ᱡᱟᱹᱣᱟᱹᱵ – ᱓ ᱴᱟᱠᱟ ᱓᱐ ᱯᱟᱭᱥᱟ ᱨᱮᱭᱟᱜ ᱒᱐%

$$= (᱓\ ᱴᱟ.\ ᱓᱐\ ᱯᱟᱭ.) \times \frac{᱒᱐}{᱑᱐᱐}$$

$$= (᱓\ ᱴᱟ.\ ᱓᱐\ ᱯᱟᱭ.) \times \frac{᱒᱐}{᱑᱐᱐} = ᱒᱑᱐\ ᱯᱟᱭ. \times \frac{᱒}{᱑᱐}$$

$$= ᱒\ ᱴᱟ.\ ᱒᱒\ ᱯᱟᱭ.$$

(ᱵ) ᱑᱒᱐᱐ ᱜᱚᱴᱟᱝ ᱜᱚ.ᱞᱟᱜ ᱓$\frac{᱑}{᱒}$% ᱛᱤᱱᱟᱹᱜ ?

ᱡᱟᱹᱣᱟᱹᱵ – ᱑᱒᱐᱐ ᱜᱚᱴᱟᱝ ᱜᱚ.ᱞᱟᱜ ᱓$\frac{᱑}{᱒}$%

$$= ᱑᱒᱐᱐ \times \frac{᱓\frac{᱑}{᱒}}{᱑᱐᱐} = ᱑᱒᱐᱐ \times \frac{᱗}{᱒ \times ᱑᱐᱐}$$

$$= ᱑᱒᱐᱐ \times \frac{᱗}{᱒᱐᱐} = ᱔᱒\ ᱜᱚᱴᱟᱝ\ ᱜᱚ.ᱞ$$

ᱠᱟᱹᱢᱤ. – ᱒

ᱢᱤᱫᱴᱟᱹᱝ ᱥᱭᱠᱲᱟ ᱨᱮ ᱓᱐ ᱥᱭ ᱠᱷᱚᱱ ᱜᱮ ᱥᱭ ᱒ ᱯᱟᱦᱴᱟ ᱠᱮᱜ-ᱟ, ᱵᱮᱲ ᱥᱟᱹᱢᱟᱝᱨᱮ ᱛᱤᱱᱟᱹᱜ ᱥᱭ ᱒ ᱯᱟᱦᱴᱟ ᱠᱮᱜ-ᱟ ?

[illegible]

∴ ᱫᱟᱨᱮ ᱮᱞ ᱨᱮᱱᱟᱜ ᱑᱐᱐% = ᱕x᱑᱐᱐=᱕᱐᱐

ᱥᱟᱛᱜᱮ ᱨᱮ ᱩᱮᱡᱟᱜ ᱫᱟᱨᱮ ᱜᱳᱹᱴ ᱫᱚ ᱕᱐᱐ ।

᱓ ᱟᱜ ᱚᱟᱣᱟᱨ –

ᱥᱟᱛᱜᱮ ᱨᱮ ᱫᱟᱨᱮ ᱨᱮᱱᱟᱜ ᱮᱞ = $\frac{᱗᱕}{᱑᱐᱐}$ = ᱓᱗᱕

ᱮᱡᱠᱤᱟᱡ ᱫᱟᱨᱮ ᱠᱟᱨᱮᱡᱟᱜ ᱜᱳᱹᱴ ᱮᱞ = $\frac{᱓᱗᱕}{\frac{᱗᱕}{᱑᱐᱐}}$

= ᱓᱗᱕ x $\frac{᱑᱐᱐}{᱗᱕}$ = ᱕᱐᱐

ᱫᱟ.ᱱᱠᱟ. – ᱖

ᱩᱯᱫ ᱣᱟᱛᱟᱜ ᱥᱟᱦᱤᱟᱨ ᱨᱮᱡᱟᱜ ᱠᱳᱛᱟ.ᱱ ᱫᱟ ᱴᱟ. ᱖᱐᱐᱐.᱐᱐ । ᱳᱮᱯ ᱟᱢᱟᱜ ᱠᱳᱛᱟ.ᱱ ᱠᱤᱟᱡ ᱑᱖% ᱮ ᱵᱟᱹᱜᱦᱟᱵᱟ । ᱟᱢᱟᱜ ᱥᱟᱦᱤᱟᱨ ᱨᱮᱡᱟᱜ ᱠᱤᱟᱨᱟᱦ ᱫᱟ ᱚᱯᱮᱟ.ᱜ ?

ᱵᱟᱹᱜᱦᱟᱵᱟᱱ = ᱴᱟ. ᱖᱐᱐᱐.᱐᱐ ᱨᱮᱱᱟᱜ ᱑᱖%

= ᱴᱟ. ᱖᱐᱐᱐.᱐᱐ x $\frac{᱑᱖}{᱑᱐᱐}$ = ᱴᱟ. ᱙᱖᱐.᱐᱐

ᱠᱤᱟᱨᱟᱦᱟᱱ = ᱴᱟ. ᱖᱐᱐᱐.᱐᱐ – ᱴᱟ. ᱙᱖᱐.᱐᱐

= ᱴᱟ. ᱕᱙᱖᱐.᱐᱐

∴ ᱟᱢᱟᱜ ᱥᱟᱦᱤᱟᱨ ᱨᱮᱡᱟᱜ ᱠᱤᱟᱨᱟᱦ ᱫᱟ ᱴᱟ. ᱕᱙᱖᱐.᱐᱐ ।

ᱫᱟ.ᱱᱠᱟ. – ᱕

ᱩᱯᱫᱴᱟᱢ ᱥᱟᱢᱟᱨᱯᱮ ᱣᱟᱛ ᱠᱟᱵᱟᱜ ᱜᱳᱹᱴ ᱵᱮᱨᱩᱟ ᱫᱯᱦᱤᱯ ᱑᱐% ᱣᱯᱵᱟ.ᱥ ᱚᱮ ᱥᱟ.ᱜᱟᱜ-ᱟ । ᱮᱯᱚᱟᱜ ᱣᱟᱛᱠᱟᱵᱟᱜ ᱮᱞ ᱗,᱐᱐᱐ ᱣᱳᱱᱳᱜ ᱠᱤᱟᱡ ᱓ ᱵᱮᱨᱩᱟ ᱚᱟᱱᱟᱩ ᱟᱮᱟ ᱥᱟᱢᱟᱨ ᱨᱯᱮ ᱣᱟᱛᱟᱜ ᱮᱞ ᱚᱯᱮᱟ.ᱜ ᱣᱳᱱᱳᱜ-ᱟ ?

ᱞᱟ.ᱮᱟ.ᱱ – ᱵᱮᱨᱩᱟ ᱫᱯᱦᱤᱯ ᱑᱐% ᱠᱟ ᱥᱟ.ᱜᱟᱜ-ᱟ

ᱮᱡᱠᱤᱟᱡ ᱮᱚᱟᱣᱟᱥ ᱵᱮᱨᱩᱟ ᱨᱯᱮ ᱥᱟ.ᱜ ᱣᱟᱛ

= ᱗᱐᱐᱐ ᱨᱮᱱᱟᱜ ᱑᱐%

= ᱗᱐᱐᱐ x $\frac{᱑᱐}{᱑᱐᱐}$

=᱗᱐᱐

ᱫᱚᱨᱠᱟᱨ ᱠᱷᱚᱨᱚᱪ ᱵᱟᱹᱲᱛᱤ.ᱫ ᱟᱨᱦᱚ ᱥᱮᱨᱢᱟ ᱨᱮ ᱛᱟ.ᱦᱩᱭᱩᱜ-ᱟ
= ᱘᱘᱐᱐ ᱨᱮᱭᱟᱜ ᱑᱐%
= ᱘᱘᱐᱐ x ᱑᱐/᱑᱐᱐
= ᱘᱘᱐
∴ ᱛᱟᱭ ᱠᱷᱚᱨᱚᱪ ᱚᱛᱟᱨᱤᱠ ᱛᱟᱦᱮᱸᱱᱟ ᱥᱟᱨᱮ ᱥᱮᱨᱢᱟᱜ ᱨᱮ
= ᱘᱘᱐᱐+᱘᱘᱐= ᱙᱖᱘᱐

ᱫᱟ.ᱞᱮᱠᱟ. — ᱒

ᱦᱚᱲᱚ ᱵᱟᱦᱩᱨᱤ ᱨᱮᱭᱟᱜ ᱜᱚᱨᱚᱫ ᱵᱟᱦᱩᱨᱤᱭᱟᱜ ᱠᱷᱚᱨᱚᱪ ᱵᱟᱲᱦᱟᱣᱚᱜᱼᱟᱭ ᱨᱮ ᱴᱟ.᱕.᱒᱐ ᱚᱛᱟᱨᱤᱡ ᱾ ᱢᱤᱫ ᱵᱟᱲᱦᱟᱣᱚᱜᱼᱟᱭ ᱯᱟᱹᱭᱥᱟ ᱡᱷᱚᱛᱚ ᱨᱮᱭᱟᱜ ᱜᱚᱨᱚᱫ ᱴᱟ. ᱖.᱐᱐ ᱦᱩᱭᱮᱱᱟ ᱾ ᱦᱚᱲᱚ ᱵᱟᱦᱩᱨᱤ ᱜᱚᱨᱚᱫ ᱢᱤᱫᱟᱜ, ᱵᱟᱦᱩᱨᱤᱭᱟᱜ ᱠᱷᱚᱨᱚᱪ ᱵᱚᱫᱚᱞ ᱚᱛᱟᱨᱤᱡ ᱠᱚᱢᱤᱵᱚᱱᱟ ᱛᱟ.ᱞᱟᱭ ᱡᱟᱣᱟᱢᱟ ?

ᱯᱟ.ᱢᱟ.ᱨ — ᱦᱚᱲᱚ ᱵᱟᱦᱩᱨᱤ ᱜᱚᱨᱚᱫ ᱵᱟᱦᱩᱨᱤᱭᱟᱜ ᱠᱷᱚᱨᱚᱪ
ᱵᱚᱫᱚᱞ ᱢᱤᱫ ᱵᱟᱲᱦᱟ ᱯᱟᱹᱭᱥᱟ ᱜᱷᱟᱴᱟᱣ ᱨᱮᱭᱟ
= ᱴᱟ.᱖.᱐᱐ − ᱴᱟ. ᱕.᱒᱐
= ᱴᱟ. ᱐.᱘᱐
ᱴᱟ. ᱕.᱒᱐ ᱨᱮᱭᱟᱜ ᱜᱷᱟᱴᱟᱣ ᱨᱮᱭᱟ = ᱴᱟ. ᱐.᱘᱐
ᱚᱱᱟᱛᱮ ᱕᱒᱐ ᱯᱩᱭᱥᱟ. ᱨᱮᱭᱟᱜ ᱜᱷᱟᱴᱟᱣ ᱨᱮᱭᱟ ᱘᱐ ᱯᱩᱭᱥᱟ.
∴ ᱑᱐᱐ ᱯᱩᱭᱥᱟ. ᱨᱮᱭᱟᱜ ᱜᱷᱟᱴᱟᱣ ᱨᱮᱭᱟ ᱘᱐/᱕᱒᱐ x ᱑᱐᱐ ᱯᱩᱭᱥᱟ.
= ᱑᱕ ᱯᱩᱭᱥᱟ.

ᱵᱟᱦᱩᱨᱤ ᱨᱮᱭᱟᱜ ᱜᱚᱨᱚᱫ ᱢᱤᱫ ᱠᱚᱢᱤᱵᱚᱱᱟ ᱑᱕ ᱛᱟᱥᱚᱛᱟᱜ ᱑᱕% ᱜᱷᱟᱴᱟᱣ ᱨᱮᱭᱟ ᱾

ᱫᱟ.ᱞᱮᱠᱟ. — ᱓

ᱦᱟᱫ ᱥᱮᱨᱢᱟ ᱛᱟᱦᱮᱸᱱᱟ ᱠᱚᱦᱩᱯᱩᱨᱟ ᱵᱚᱫᱚᱞ ᱔᱐% ᱦᱟᱛᱟᱨᱟᱜ ᱵᱚᱫᱚᱞ, ᱒᱕% ᱥᱩᱜᱟᱹᱣ ᱵᱚᱫᱚᱞ, ᱒᱐% ᱛᱤᱦ ᱛᱟ.ᱥᱩ ᱛᱟᱨ ᱑᱕% ᱥᱚᱯᱚᱨᱚᱜ ᱨᱟᱱᱟᱨᱤ ᱨᱩᱦᱟᱫ ᱵᱚᱦᱚᱫ ᱾ ᱠᱟᱱᱟᱨᱩ ᱖,᱐᱐᱐ ᱴᱟᱠᱟ ᱦᱟᱫᱤᱴᱟᱫ ᱯᱚᱵᱚᱛᱚᱞ ᱦᱩᱨᱩᱵᱤ-ᱨ ᱜᱚᱲᱚ ᱠᱚᱥᱚᱫ ᱵᱮᱜᱮ-ᱟ ᱾ ᱛᱟᱦᱮᱸᱜ ᱜᱩᱴ ᱠᱚᱦᱩᱯᱩᱨᱟ ᱫᱚ ᱚᱛᱟᱨᱤᱡ ᱛᱟᱨ ᱦᱚᱫᱚᱠ ᱚᱛᱟᱨᱤᱡ ᱵᱛᱚᱨ ᱛᱟᱯᱛᱮ ᱛ.ᱯᱟᱨᱮ ᱨᱮ ᱩᱛᱟᱦᱛ ᱵᱮᱜᱮ-ᱟ ᱾

ᱥᱚ.ᱢᱟ.ᱫ –

ᱞᱚᱥᱚᱛ ᱣᱟᱫᱟᱮ ᱢᱟᱥᱚᱫᱭ = ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱓᱐%

ᱣᱥᱢᱟᱫ ᱣᱟᱫᱟᱮ ᱢᱟᱥᱚᱫᱭ = ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱒᱕%

ᱣᱟᱫᱟᱮ ᱨᱥᱚ ᱢᱟᱥᱚᱫᱭ = ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱑᱕%

ᱚᱞ ᱢᱚ.ᱣᱥ ᱢᱟᱥᱚᱫᱭ = ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱒᱐%

ᱮᱥᱱᱥ ᱞᱟᱚᱟ ᱣᱟᱨᱚᱩ

ᱩᱥᱛ ᱢᱟᱥᱚᱫᱭ = ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱙᱐%

ᱠᱚᱥᱨᱞᱚᱩ ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱠᱚᱮᱱᱟᱥᱚ ᱢᱟᱥᱚᱫᱭ

= ᱑᱐᱐%−᱙᱐% = ᱑᱐%

ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱑᱐% ᱥᱮᱧ ᱫᱟᱚᱟᱢ ᱞᱥᱥᱥᱮ ᱨ ᱩᱟᱨᱟ ᱚᱡᱨᱮᱚ ।

ᱚᱟᱢᱨ ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱑᱐% = ᱛᱚ. ᱕᱐᱐᱐.᱐᱐

ᱠᱟᱞᱫᱟᱚᱧ ᱥᱮᱮᱚᱩ ᱩᱥᱛ = $\frac{᱕᱐᱐᱐}{᱑᱐}$x᱑᱐᱐ ᱛᱚᱱᱚ

= ᱕᱐᱐᱐᱐ ᱛᱚᱱᱚ

ᱞᱚᱥᱚᱛ ᱣᱟᱫᱟᱮᱨ ᱫᱚᱞᱚ=᱕᱐᱐᱐᱐x $\frac{᱓᱐}{᱑᱐᱐}$=᱑᱕᱐᱐᱐ ᱛᱚᱱᱚ

ᱣᱥᱢᱟᱫ ᱣᱟᱫᱟᱮᱨ ᱫᱚᱞᱚ=᱕᱐᱐᱐᱐x $\frac{᱒᱕}{᱑᱐᱐}$=᱑᱒᱕᱐᱐ ᱛᱚᱱᱚ

ᱣᱟᱫᱟᱮ ᱨᱥᱚᱮ ᱫᱚᱞᱚ=᱕᱐᱐᱐᱐x $\frac{᱑᱕}{᱑᱐᱐}$=᱗᱕᱐᱐ ᱛᱚᱱᱚ

ᱚᱞ ᱢᱚ.ᱣᱥᱮ ᱫᱚᱞᱚ=᱕᱐᱐᱐᱐x $\frac{᱒᱐}{᱑᱐᱐}$=᱑᱐᱐᱐᱐ ᱛᱚᱱᱚ

ᱩᱫᱟ.ᱦᱚ. – ᱙

᱒᱐, ᱘᱐ ᱥᱮᱮᱚᱩ ᱠᱚᱮᱱᱟᱥᱚ ᱚᱧᱮᱚ.ᱩ ?

ᱠᱟᱯᱣᱨ – ᱒᱐ ᱚᱥ ᱘᱐ ᱥᱮᱮᱚᱩ ᱞᱚ.ᱮᱧ = $\frac{᱒᱐}{᱘᱐}$ = $\frac{᱑}{᱔}$

$\frac{᱑}{᱔}$ = ($\frac{᱑}{᱔}$ x᱑᱐᱐)% = ᱒᱕%

∴ ᱒᱐, ᱘᱐ ᱥᱮᱮᱚᱩ ᱩᱟ ᱒᱕% ᱱᱚᱮᱚ ।

ᱩᱫᱟ.ᱦᱚ. – ᱑᱐

᱙᱐ ᱩᱟ ᱚᱧᱮᱚ.ᱩ ᱥᱮᱮᱚᱩ ᱓᱐% ?

[illegible] –

[illegible] ୩୦% [illegible] ୯୦ ।

[illegible] ୩୦% = ୯୦

$\therefore$ [illegible] ୧% = $\frac{୯୦}{୩୦}$ = ୩

$\therefore$ [illegible] ୧୦୦% = ୩×୧୦୦ = ୩୦୦

[illegible] ୩୦୦ [illegible] ।

[illegible]

୧. [illegible]

୨. [illegible] ?

୩. [illegible] ?

୪. (ଅ) [illegible] ?
(ଆ) [illegible] ?
(ଇ) [illegible] ?
(ଈ) [illegible] ?
(ଉ) [illegible] ?
(ଊ) [illegible] ?

(ᱠ) ᱒ ᱴᱦᱟᱝ ᱔᱐ ᱴᱦᱤᱡ ᱨᱮᱭᱟᱜ ᱖᱐%= ?

(ᱡ) ᱴᱟ. ᱕᱐᱐᱐.᱐᱐ ᱨᱮᱭᱟᱜ ᱒ ᱑/᱕ %= ?

᱕. ᱢᱤᱫᱴᱟᱝ ᱵᱟᱦᱜᱮ ᱨᱮ ᱕᱐᱐ ᱜᱚᱴᱟᱝ ᱫᱟᱨᱮ ᱢᱮᱱᱟᱜ-ᱟ । ᱩᱞ ᱫᱟᱨᱮ ᱮᱞ ᱫᱚ ᱑᱒᱐, ᱱᱟᱹᱨᱠᱟᱹ ᱫᱟᱨᱮ ᱮᱞ ᱫᱚ ᱒᱐᱐ ᱟᱨ ᱥᱩᱭᱛᱟᱹᱢ ᱫᱟᱨᱮ ᱮᱞ ᱫᱚ ᱑᱐᱐ । ᱥᱟᱨᱮᱡᱟᱜ ᱫᱚ ᱜᱩᱣᱟᱹ ᱫᱟᱨᱮ ᱠᱷᱟᱱᱮ ᱡᱮᱚᱛᱚ ᱞᱮᱠᱟᱛᱮ ᱫᱟᱨᱮᱭᱟᱜ ᱜᱩᱸᱴ ᱮᱞ ᱥᱟᱭᱠᱚᱲᱟ ᱞᱮᱠᱟᱛᱮ ᱥᱚᱫᱚᱲᱮ ᱯᱮ ।

᱖. ᱥᱩᱨᱢᱩ ᱵᱟᱮᱷᱟᱵ ᱢᱚᱲᱜ ᱮᱞᱠᱷᱟ ᱨᱮ ᱖᱐ ᱠᱷᱟᱱᱮ ᱔᱖ ᱮᱞᱮ ᱫᱟᱢ ᱟᱠᱟᱜ-ᱟ । ᱩᱱᱤ ᱥᱟᱭᱠᱚᱲᱟ ᱛᱤᱱᱟᱹᱜ-ᱮ ᱫᱟᱢ ᱟᱠᱟᱜ-ᱟ ?

᱗. ᱥᱟᱹᱞᱠᱷᱚᱲ ᱥᱟᱹᱱᱵᱮᱚ ᱨᱮ ᱔᱖ ᱮᱞᱮ ᱫᱚᱦᱚ ᱟᱠᱟᱜ-ᱟ । ᱚᱱᱟ ᱥᱟᱭᱠᱚᱲᱟ ᱑᱖ ᱠᱷᱟᱱᱮ ᱥᱟᱹᱱᱵᱮᱚ ᱨᱮᱱᱟᱜ ᱜᱩᱸᱴ ᱮᱞ ᱫᱚ ᱛᱤᱱᱟᱹᱜ ?

᱘. (ᱚ) ᱚᱠᱚᱭᱟᱜ ᱒᱕%=᱕᱐
(ᱟ) ᱚᱠᱚᱭᱟᱜ ᱑᱕%=ᱴᱟ. ᱕.᱔᱐
(ᱤ) ᱚᱠᱚᱭᱟᱜ ᱒ ᱑/᱒ %=ᱴᱟ. ᱑᱕ ᱯᱟᱭᱥᱟ
(ᱩ) ᱚᱠᱚᱭᱟᱜ ᱑᱒᱐%=᱘᱘᱐ ᱠᱤ. ᱢᱤ.
(ᱮ) ᱚᱠᱚᱭᱟᱜ ᱗᱕%=᱒ ᱴᱦᱟᱝ ᱘᱐ ᱴᱦᱤᱡ
(ᱳ) ᱚᱠᱚᱭᱟᱜ ᱘%=ᱴᱟ. ᱘.᱖᱐

᱙. ᱠᱟᱹᱨᱩᱣᱟᱜ ᱥᱟᱸᱫᱚ ᱨᱮ ᱫᱚᱨᱢᱟ ᱴᱟ. ᱘᱕᱐.᱐᱐ । ᱩᱱᱤ ᱫᱸᱣᱮ ᱠᱷᱚᱱᱮ ᱴᱟ. ᱒᱐.᱐᱐ ᱫᱚ ᱥᱚᱦᱚᱫ ᱜᱚᱭᱚᱱ ᱮᱩ ᱠᱮᱜ-ᱟ । ᱩᱱᱤ ᱟᱢᱟᱜ ᱫᱚᱨᱢᱟ ᱨᱮᱱᱟᱜ ᱥᱟᱭᱠᱚᱲᱟ ᱛᱤᱱᱟᱹᱜ ᱜᱚᱭᱚᱱ ᱮᱩ ᱠᱮᱜ-ᱟ ?

᱑᱐. ᱤᱛᱩᱱ ᱟᱥᱟᱚ ᱠᱷᱚᱱᱮ ᱥᱩᱨᱩ ᱛᱮᱠᱚᱚᱱᱟᱜ ᱚᱦᱟᱜ ᱠᱷᱚᱱᱮ ᱑᱒᱐ ᱠᱤ. ᱢᱤ. ᱡᱚᱱ.ᱞᱟ । ᱩᱱᱤ ᱘᱖ ᱠᱤ. ᱢᱤ. ᱫᱚᱥ ᱛᱮ ᱥᱤᱡᱩᱜ-ᱟ । ᱚᱱᱟ ᱡᱚᱱ.ᱞ ᱨᱮᱱᱟᱜ ᱥᱟᱭᱠᱚᱲᱟ ᱛᱤᱱᱟᱹᱜ ?

[illegible]. (ଵ) [illegible] = [illegible]
(ଈ) [illegible] = [illegible]
(ନ) [illegible] = [illegible]
(ଠ) [illegible] = [illegible]
(Z) [illegible] =
[illegible]

[illegible]. [illegible] %
[illegible] ।
[illegible] ,000 [illegible]
[illegible] ?

[illegible]. [illegible] %
[illegible] ।
[illegible] ,000 [illegible]
[illegible] ?

[illegible]. [illegible]
[illegible] ।
[illegible] ।
[illegible] ?

[illegible]. [illegible] 200.00 [illegible]
[illegible] ।
[illegible] .00 [illegible] ।
[illegible] ?

[illegible]. [illegible]
[illegible] 200 [illegible]
[illegible] ।
[illegible] ?

[illegible]. [illegible] %
[illegible] 20% [illegible]

ᱟᱠᱟᱜ-ᱟ ᱾ ᱮᱞᱠᱷᱟ ᱨᱮ ᱥᱟᱹ᱐ ᱟᱠᱟᱫ ᱵᱮᱛᱮᱫᱤᱭᱟ. ᱮᱞ ᱫᱚ ᱑᱖᱐ ᱠᱷᱟᱱᱮ ᱥᱟᱹᱣᱮᱫ ᱨᱮ ᱛᱤᱱᱟᱹᱜ ᱵᱮᱛᱮᱫᱤᱭᱟ. ᱠᱚ ᱣᱩᱢᱩᱫ ᱟᱠᱟᱱᱟ ?

᱑᱘. ᱱᱚᱶᱟ ᱠᱚᱨᱮᱠᱷᱚᱱ ᱚᱠᱚᱭᱟᱜ ᱒᱙% ?
᱓᱐᱐, ᱖᱔᱘᱐, ᱘᱑᱘᱓

᱑᱙. ᱢᱤᱫ ᱣᱚᱵ ᱟᱹᱢᱟᱜ ᱥᱮᱨᱢᱟ ᱨᱮ ᱟᱹᱨᱢᱟᱣ ᱨᱮᱭᱟᱜ ᱙᱐% ᱦᱚᱲ ᱨᱮ ᱠᱷᱚᱵᱨᱚᱯᱟ ᱾ ᱟᱹᱢᱟᱜ ᱦᱚᱲ ᱠᱷᱚᱵᱨᱯᱚ ᱒᱘᱙᱐ ᱴᱟᱠᱟ ᱠᱷᱟᱱᱮ ᱩᱮᱤ ᱥᱮᱨᱢᱟ ᱨᱮ ᱛᱤᱱᱟᱹᱜ ᱴᱟᱠᱟᱭ ᱟᱹᱨᱢᱟᱣᱟ ?

᱒᱐. ᱢᱤᱫᱴᱟᱝ ᱢᱟᱵᱮᱛ ᱵᱟᱸᱫᱚ ᱨᱮ ᱠᱩᱫᱟᱹᱞ ᱨᱮᱭᱟᱜ ᱖% ᱫᱚ ᱴᱚᱛᱚᱨ ᱠᱤᱨᱤᱧ ᱨᱮ ᱠᱷᱚᱵᱨᱚᱯᱟ ᱾ ᱩᱮᱤ ᱢᱤᱫ ᱥᱮᱨᱢᱟ ᱒᱘᱐ ᱴᱟᱠᱟ ᱨᱮᱭᱟᱜ ᱴᱚᱛᱚᱨ ᱮ ᱠᱤᱨᱤᱧ ᱠᱮᱜ-ᱟ ᱾ ᱵᱮᱱᱟ ᱥᱮᱨᱢᱟ ᱟᱹᱢᱟᱜ ᱵᱟᱸᱫᱚᱨᱮ ᱛᱤᱱᱟᱹᱜ ᱠᱩᱫᱟᱹᱞ ᱛᱟᱞ ?

᱒᱑. ᱞᱟᱛᱟᱨ ᱨᱮ ᱚᱞᱮᱱ ᱮᱞᱠᱚ ᱨᱤᱱ ᱢᱚᱫ ᱮᱞ ᱠᱤᱱ ᱠᱷᱚᱱ ᱮᱛᱚᱣᱚᱵ ᱮᱞ ᱫᱚᱥᱟᱨ ᱮᱞᱟᱜ ᱥᱟᱞᱠᱚᱨᱟᱱ ᱛᱤᱱᱟᱹᱜ ?

᱒᱒. ᱢᱤᱫ ᱴᱟᱨᱥᱟᱞᱮᱛᱟᱜ ᱥᱮᱨᱢᱟ ᱨᱮ ᱒᱖᱐ ᱦᱚᱲ ᱴᱚᱛᱚᱨ ᱵᱷᱟᱴᱟᱜ-ᱟ ᱾ ᱚᱸᱡᱮ ᱠᱷᱚᱱ ᱘᱑ ᱦᱚᱲ ᱤᱸᱦᱞᱤᱥ ᱴᱚᱛᱚᱨ ᱾ ᱛᱚᱨᱮ ᱥᱟᱞᱠᱚᱨᱟᱱ ᱛᱤᱱᱟᱹᱜ ᱤᱸᱦᱞᱤᱥ ᱴᱚᱛᱚᱨ ᱵᱷᱟᱴᱟᱜ-ᱟ ?

᱒᱓. ᱢᱤᱫᱴᱟᱝ ᱟ.᱐᱕ ᱨᱮᱭᱟᱜ ᱵᱟᱥ ᱨᱟ.ᱡᱩ ᱑᱘᱘᱐ ᱣᱮᱠᱴᱚᱨ ᱢᱮᱭᱟᱜ-ᱟ ᱾ ᱚᱸᱡᱮ ᱠᱷᱚᱱ ᱑᱘᱖ ᱣᱮᱠᱴᱚᱨ ᱨᱟ.ᱡᱩ ᱨᱮᱫᱚ ᱢᱩᱜ ᱠᱚ ᱵᱟᱥᱟ ᱾ ᱮᱭᱠᱷᱟᱱᱮ ᱟ.᱐᱕ ᱨᱮᱭᱟᱜ ᱨᱟ.ᱡᱩ ᱠᱷᱚᱱᱮ ᱥᱟᱞᱠᱚᱨᱟᱱ ᱛᱤᱱᱟᱹᱜ ᱢᱩᱜ ᱵᱟᱥ ᱣᱩᱞᱩᱜ-ᱟ ?

ᱞᱟᱵᱷ ᱟᱨ ᱦᱟᱹᱱ

ᱵᱮᱯᱟᱨᱤᱭᱟᱹ ᱠᱚ ᱪᱟᱹᱥᱤ ᱴᱷᱮᱱ ᱠᱷᱚᱱ ᱠᱤᱨᱤᱧᱟ ᱟᱨ ᱦᱚᱲ ᱴᱷᱮᱱ ᱠᱚ ᱟᱹᱠᱷᱨᱤᱧᱟ ᱾ ᱡᱤᱱᱤᱥ ᱡᱟᱦᱟᱸ ᱴᱟᱠᱟ ᱮᱢ ᱠᱟᱛᱮ ᱠᱤᱨᱤᱧᱚᱜ-ᱟ, ᱚᱱᱟ ᱫᱚ ᱚᱱᱟ ᱡᱤᱱᱤᱥ ᱨᱮᱱᱟᱜ ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱠᱚ ᱢᱮᱱᱟ ᱾ ᱡᱤᱱᱤᱥ ᱟᱹᱠᱷᱨᱤᱧ ᱡᱷᱚᱜ ᱡᱟᱦᱟᱸ ᱴᱟᱠᱟ ᱦᱟᱛᱟᱣᱜ-ᱟ, ᱚᱱᱟ ᱫᱚ ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱠᱚ ᱢᱮᱱᱟ ᱾

ᱡᱩᱫᱤ ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱠᱷᱚᱱ ᱵᱷᱮᱨᱚᱜ-ᱟ ᱤᱱᱟᱹᱠᱷᱟᱱ ᱫᱚᱠᱟᱱᱮᱱᱟᱜ ᱞᱟᱹᱵᱷ ᱦᱩᱭᱩᱜ-ᱟ ᱾ ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱠᱷᱚᱱ ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱵᱷᱮᱜᱮᱫ ᱞᱮᱠᱷᱟᱱ ᱛᱤᱱᱟᱹᱜ ᱞᱟᱵᱷ ᱮᱱᱟ ᱚᱰᱚᱠᱚᱜ-ᱟ ᱾

ᱞᱟᱵᱷ = ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ − ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ

(ᱟᱹᱠᱷ. ᱜᱚ. > ᱠᱤ. ᱜᱚ.)

(ᱞᱟᱵᱷ = ᱟᱹᱠᱷ. ᱜᱚ. − ᱠᱤ. ᱜᱚ.)

ᱮᱱᱠᱷᱟᱱ ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ = ᱞᱟᱵᱷ + ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ

(ᱟᱹᱠᱷ. ᱜᱚ. = ᱞᱟᱵᱷ + ᱠᱤ. ᱜᱚ.)

ᱚᱱᱠᱟᱜᱮ ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ = ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ − ᱞᱟᱵᱷ

(ᱠᱤ. ᱜᱚ. = ᱟᱹᱠᱷ. ᱜᱚ. − ᱞᱟᱵᱷ)

ᱡᱩᱫᱤ ᱡᱤᱱᱤᱥ ᱨᱮᱱᱟᱜ ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ, ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱠᱷᱚᱱ ᱠᱚᱢᱚᱜ-ᱟ ᱮᱱᱠᱷᱟᱱ ᱟᱹᱠᱷᱨᱤᱧᱤᱡᱟᱜ ᱦᱟᱹᱱ ᱦᱩᱭᱩᱜ-ᱟ ᱾ ᱡᱤᱱᱤᱥ ᱨᱮᱭᱟᱜ ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱠᱷᱚᱱ ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱵᱷᱮᱜᱮᱫ ᱞᱮᱠᱷᱟᱱ ᱛᱤᱱᱟᱹᱜ ᱦᱟᱹᱱ ᱦᱩᱭ ᱮᱱᱟ ᱵᱟᱰᱟᱭᱚᱜ-ᱟ ᱾

ᱦᱟᱹᱱ = ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ − ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ

(ᱠᱤ. ᱜᱚ. > ᱟᱹᱠᱷ. ᱜᱚ.)

∴ ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ = ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ − ᱦᱟᱹᱱ

ᱟᱨ ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ = ᱟᱹᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ + ᱦᱟᱹᱱ

ᱟᱹᱠᱷᱨᱤᱧᱠᱚᱫᱚ ᱡᱤᱱᱤᱥ ᱠᱤᱨᱤᱧ ᱴᱷᱟᱣᱸ ᱠᱷᱚᱱ ᱟᱹᱠᱷᱨᱤᱧ ᱴᱷᱟᱣᱸ ᱟᱹᱜᱩ ᱞᱟᱹᱜᱤᱫ ᱛᱤᱱᱟᱹᱜ ᱜᱟᱱ ᱢᱩᱞᱤᱭᱟᱹ ᱠᱷᱚᱨᱚᱪ,

[illegible] —

[illegible] = [illegible] + [illegible]

[illegible]

[illegible]. [illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]00	[illegible]00		
[illegible]0		[illegible]0	
	[illegible]		[illegible]
	[illegible]00	[illegible]00	
[illegible]0			[illegible]00

[illegible]. [illegible] [illegible]0.00 [illegible] 00 [illegible]. [illegible] [illegible].00 [illegible] [illegible].00 [illegible] ?

[illegible]. [illegible] [illegible],000 [illegible] [illegible],000 [illegible] [illegible]00 [illegible] ?

[illegible]

[illegible]

[illegible] — [illegible] 300.00 [illegible] 360.00 [illegible] 500.00 [illegible] 620.00 [illegible]

([illegible]) [illegible]

$= [illegible]\ 360.00 - [illegible]\ 300.00$

$= [illegible]\ 60.00$

[illegible]

$= \frac{60}{300} = \frac{1}{5}$

$\therefore$ [illegible] $= \frac{1}{5} \times 100 = 20$

$\therefore$ [illegible] $= 20\%$

([illegible]) [illegible] $= [illegible]\ 500.00$

[illegible] $= [illegible]\ 620.00$

[illegible]

$= [illegible]\ 620.00 - [illegible]\ 500.00$

$= [illegible]\ 120.00$

[illegible]

$= \frac{120}{500} = \frac{6}{25}$

$\therefore$ [illegible] $= \frac{6}{25} \times 100 = 24$

$\therefore$ [illegible] $= 24\%$

[illegible]

[illegible] $= \frac{[illegible]}{[illegible]} \times 100$	
[illegible] $= \frac{[illegible]}{[illegible]} \times 100$	

ꯈꯨ.ꯗꯝ. — ꯱

ꯑꯥꯏꯕꯣꯆꯥꯅꯥ ꯂꯥꯏꯔꯤꯛ ꯔꯨ. ꯴꯸꯰.꯰꯰ ꯒꯤ ꯃꯃꯜ ꯃꯊꯛꯇ ꯵% ꯀꯃꯤꯁꯟ ꯒꯤ ꯑꯣ.ꯃꯁꯤꯡꯒꯤ ꯃꯦꯖꯥ-ꯑꯣ ꯫ ꯂꯥꯏꯔꯤꯛ ꯂꯦꯟꯊꯣꯛ ꯑꯣ.ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ ꯀꯥꯟꯑꯣ.ꯗ ?

ꯄꯥꯎꯈꯨꯝ — ꯂꯥꯏꯔꯤꯛ ꯂꯦꯟꯊꯣꯛ ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ =ꯔꯨ. ꯴꯸꯰.꯰꯰

ꯀꯃꯤꯁꯟ = ꯵

ꯑꯣꯂꯤꯅꯥꯗ ꯀꯃꯤꯁꯟ = ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ ꯂꯦꯟꯊꯣꯛ ꯵%

$$= ꯔꯨ.\ ꯴꯸꯰.꯰꯰ \times \frac{꯵}{꯱꯰꯰}$$

$$= ꯔꯨ.\ ꯲꯴.꯰꯰$$

∴ ꯂꯥꯏꯔꯤꯛ ꯂꯦꯟꯔꯤꯛ ꯑꯣ.ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ

= ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ + ꯀꯃꯤꯁꯟ

= ꯔꯨ. ꯴꯸꯰ + ꯔꯨ. ꯲꯴ = ꯔꯨ. ꯵꯰꯴.꯰꯰

ꯈꯨ.ꯗꯝ. — ꯲

ꯑꯥꯏꯕꯣꯆꯥꯅꯥ ꯐꯨꯔꯨꯠ ꯗꯤ.ꯐꯥ ꯃꯁꯤꯡꯒꯤ ꯗꯃꯂꯂꯗ ꯔꯨ. ꯲꯵꯰.꯰꯰ ꯫ ꯂꯃꯇꯥ ꯑꯣ.ꯃꯁꯤꯡꯒꯤ ꯂꯒ ꯹% ꯋꯥ.ꯂ ꯋꯨꯔ ꯒꯂꯥ ꯫ ꯐꯨꯔꯨꯠ ꯗꯤ.ꯐꯥꯔꯤꯅꯥꯗ ꯑꯣ.ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ ꯀꯥꯟꯑꯣ.ꯗ ?

ꯄꯥꯎꯈꯨꯝ —

ꯐꯨꯔꯨꯠ ꯗꯤ.ꯐꯥ ꯂꯦꯟꯊꯣꯛ ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ =ꯔꯨ. ꯲꯵꯰.꯰꯰

ꯋꯥ.ꯂ = ꯹%

ꯑꯣꯂꯤꯅꯥꯗ ꯋꯥ.ꯂ = ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ ꯂꯦꯟꯊꯣꯛ ꯹%

$$= ꯔꯨ.\ ꯲꯵꯰.꯰꯰ \times \frac{꯹}{꯱꯰꯰}$$

$$= ꯔꯨ.\ ꯴꯵.꯰꯰$$

∴ ꯂꯥꯏꯔꯤꯛ ꯂꯦꯟꯔꯤꯛ ꯑꯣ.ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ

= ꯃꯁꯤꯡꯒꯤ ꯃꯃꯂꯗ − ꯋꯥ.ꯂ

= ꯔꯨ. ꯲꯵꯰.꯰꯰ − ꯔꯨ. ꯴꯵.꯰꯰ = ꯔꯨ. ꯲꯰꯵.꯰꯰

ᱥᱮᱢᱟ ᱠᱩᱠᱞᱤ

᱑. ᱞᱟᱛᱟᱨ ᱨᱮ ᱮᱢᱮᱱ ᱠᱷᱟ.ᱞᱤ ᱡᱟᱜᱟ ᱯᱮᱨᱮᱡ ᱯᱮ ।

ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ	ᱟ.ᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ	ᱞᱟᱵᱷ	ᱥᱟ.ᱮ	ᱦᱟᱨᱠᱚᱨᱟ ᱞᱟᱵᱷ	ᱦᱟᱨᱠᱚᱨᱟ ᱥᱟ.ᱮ
ᱴᱟ. ᱖᱐᱐.᱐᱐	ᱴᱟ. ᱔᱐᱐.᱐᱐	....	....	....	....
....	ᱴᱟ. ᱖᱐᱐.᱐᱐	....	ᱴᱟ.᱔᱐᱐.᱐᱐	....	....
ᱴᱟ. ᱑᱓᱐᱐.᱐᱐	....	....	....	᱓᱐	....
....	ᱴᱟ. ᱒᱔᱐.᱐᱐	....	....	....	᱖

᱒. ᱞᱟᱛᱟᱨ ᱨᱮ ᱮᱢᱮᱱ ᱠᱷᱟ.ᱞᱤ ᱡᱟᱜᱟ ᱯᱮᱨᱮᱡ ᱯᱮ ।

ᱠᱤᱨᱤᱧ ᱜᱚᱱᱚᱝ	ᱠᱷᱚᱨᱚᱪ	ᱟ.ᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ	ᱞᱟᱵᱷ	ᱥᱟ.ᱮ	ᱦᱟᱨᱠᱚᱨᱟ ᱞᱟᱵᱷ	ᱦᱟᱨᱠᱚᱨᱟ ᱥᱟ.ᱮ
ᱴᱟ. ᱘᱐᱐	ᱴᱟ. ᱑᱐᱐	—	ᱴᱟ. ᱔᱐	—	—	—
ᱴᱟ. ᱒᱐᱐᱐	ᱴᱟ. ᱖᱐᱐	—	....	ᱴᱟ. ᱑᱐᱐	—	—
ᱴᱟ. ᱑᱖᱐᱐᱐	ᱴᱟ. ᱓᱐᱐᱐	ᱴᱟ. ᱒᱒᱖᱐᱐	....	....	—	—
ᱴᱟ. ᱓᱖᱐	ᱴᱟ. ᱖᱐	—	....	....	—	᱒᱐

᱓. ᱢᱤᱫᱴᱟᱝ ᱩᱞ ᱴᱟ. ᱖᱓.᱐᱐ ᱛᱮ ᱠᱤᱨᱤᱧ ᱠᱟᱛᱮ ᱑᱖% ᱞᱟᱵᱷ ᱛᱮ ᱟ.ᱠᱷᱨᱤᱧ ᱮᱱᱟ । ᱩᱞᱟᱜ ᱟ.ᱠᱷᱨᱤᱧ ᱜᱚᱱᱚᱝ ᱪᱮᱫ ᱛᱤᱱᱟ.ᱜ ?

᱖. ᱢᱟᱦᱟᱸᱛᱮ ᱫᱟᱢᱛᱮ ᱴᱟ. ᱙ᱟ,ᱟᱟ0.00 ᱨᱮ ᱵᱟᱭᱟᱜ ᱵᱟᱨᱮ ᱨᱟᱥᱟ.ᱜ ᱴᱟᱠᱟ ᱨᱮ ᱟ.ᱵᱷᱤᱭᱟᱜ ᱒0% ᱯᱟᱞᱚᱢ ᱥᱩᱫᱚᱜ-ᱟ ?

᱗. ᱢᱟᱥᱯᱮ ᱵᱟ. ᱜᱤᱟ. ᱤᱨ ᱴᱟ. ᱖.᱒0 ᱨᱮ ᱵᱟᱭᱟᱜ ᱵᱟᱨᱮ ᱵᱟ. ᱜᱤᱟ. ᱤᱨ ᱨᱟᱥᱟ.ᱜ ᱨᱮ ᱟ.ᱵᱷᱤᱭᱟᱜ ᱯᱨᱵᱷᱟᱞ ᱗% ᱯᱟᱞᱚᱢ ᱥᱩᱫᱚᱜ-ᱟ ?

᱘. ᱢᱟᱦᱟᱸᱛᱮ ᱤᱟᱭᱟᱭᱟᱜ ᱴᱟ. ᱙ᱟ0.00 ᱨᱮ ᱵᱟᱭᱟᱜ ᱵᱟᱨᱮ ᱨᱟᱥᱟ.ᱜ ᱨᱮ ᱟ.ᱵᱷᱤᱭᱟᱜ ᱯᱨᱵᱷᱟᱞ ᱘% ᱥᱟ.ᱞ ᱥᱩᱫᱚᱜ-ᱟ ?

᱙. ᱜᱮᱨᱮᱢ ᱵᱟ. ᱜᱤᱟ. ᱤᱨ ᱴᱟ. ᱘0.00 ᱨᱮ ᱵᱟᱭᱟᱜ ᱵᱟᱨᱮ ᱨᱟᱥᱟ.ᱜ ᱨᱮ ᱟ.ᱵᱷᱤᱭᱟᱜ ᱯᱨᱵᱷᱟᱞ ᱙᱒ $\frac{1}{2}$ % ᱥᱟ.ᱞ ᱥᱩᱫᱚᱜ-ᱟ ?

᱘. ᱢᱟᱦᱟᱸᱛᱮ ᱡᱟᱜᱟ ᱒᱙,᱘00 ᱴᱟᱠᱟ ᱨᱮ ᱟ.ᱵᱷᱤᱭᱟᱜ ᱯᱨᱵᱷᱟᱞ ᱘% ᱯᱟᱞᱚᱢ ᱥᱩᱫ ᱨᱮᱭᱟ । ᱨᱮᱞᱨ ᱡᱟᱜᱟ ᱤᱨᱮᱭᱟᱜ ᱵᱟᱭᱟᱜ ᱜᱮᱨᱮᱛᱮ ᱦᱚ ᱨᱟᱥᱟ.ᱜ ?

ᱥᱩᱫ ᱥᱚᱯᱨᱚᱢ

ᱯᱟ.ᱵᱨᱟ ᱞᱨᱫᱟ ᱤᱨ ᱟᱞᱚ ᱤᱟᱥ ᱴᱟᱠᱟ ᱞᱚ ᱟ.ᱜᱩᱢᱟ । ᱤᱟᱥᱵᱷᱜ ᱴᱟᱠᱟ ᱨᱟᱥᱟ.ᱛᱮ ᱦᱟᱥ ᱨᱟᱢᱮᱨᱢ ᱥᱟᱯᱟ ᱥᱩᱫᱚᱜ-ᱟ । ᱥᱟᱯᱟ ᱡᱤᱨᱜ ᱟ.ᱜᱩ ᱵᱟᱦ ᱴᱟᱠᱟ ᱥᱟᱯᱟᱜ ᱟᱤᱨᱟᱥᱟ.ᱜ ᱞᱟ.ᱫᱨᱟ ᱴᱟᱠᱟ ᱨᱢ ᱥᱩᱫᱚᱜ-ᱟ । ᱡᱩᱦᱟ ᱟᱞᱚ ᱴᱟ. ᱒00.00 ᱤᱟᱥ ᱟ.ᱜᱩ ᱵᱟᱨᱮ ᱥᱟᱯᱟ ᱡᱤᱨᱜ ᱴᱟ. ᱒᱙0.00 ᱨᱢᱫᱜᱮᱜ-ᱟ । ᱤᱫᱟᱞᱨ ᱡᱟᱥᱟ ᱞᱟ.ᱫᱨᱟ ᱴᱟ. ᱙0.00 ᱨᱢ ᱨᱮᱟ, ᱫᱮᱟ ᱦᱚ ᱥᱩᱫ ᱢᱨᱮᱨᱨ ᱞᱚ ᱢᱨᱮᱟ ।

ᱡᱟᱥᱟ ᱴᱟ. ᱒00.00 ᱤᱟᱥ ᱟᱵᱷᱮᱟ, ᱫᱮᱟ ᱢᱩᱞ ᱟᱤ ᱡᱟᱥᱟ ᱴᱟ. ᱒᱙0.00 ᱥᱟᱯᱟ ᱜᱨᱮᱟ ᱫᱮᱟ ᱦᱚ ᱥᱩᱫᱢᱩᱞ ᱢᱨᱮᱨᱨ ᱞᱚ ᱢᱨᱮᱟ ।

ᱥᱩᱫᱢᱩᱞ = ᱢᱩᱞ + ᱥᱩᱫ
ᱥᱩᱫ = ᱥᱩᱫᱢᱩᱞ − ᱢᱩᱞ
ᱢᱩᱞ = ᱥᱩᱫᱢᱩᱞ − ᱥᱩᱫ

𑣁𑣂𑣃 𑣄𑣅𑣂𑣃 𑣆𑣇𑣈𑣉 𑣊𑣋𑣆𑣃.𑣌𑣁𑣍-𑣃 ?

𑣖𑣋𑣎 𑣊𑣃𑣏𑣃𑣌 𑣓𑣔𑣁𑣌𑣍 𑣆𑣇𑣈 𑣏𑣋𑣎𑣃.𑣍 𑣂𑣃𑣖𑣏𑣅 𑣁𑣎𑣃 𑣂𑣁 𑣒𑣔𑣁𑣃.𑣌𑣂𑣃.𑣕𑣃 । 𑣁𑣎𑣃 𑣈𑣁 𑣆𑣅𑣖𑣐𑣃 𑣖𑣅 𑣆𑣃𑣕𑣂𑣁𑣖𑣃 𑣄𑣅𑣂𑣃𑣏𑣅 𑣒𑣔𑣁𑣃.𑣌𑣂𑣃.𑣍-𑣃 । 𑣁𑣎𑣃𑣏𑣅 𑣆𑣇𑣈𑣉 𑣂𑣃𑣖𑣏𑣅 𑣐𑣅𑣎 𑣄𑣅𑣂𑣔𑣃𑣎 𑣆𑣅𑣖𑣐𑣃 𑣖𑣅 𑣆𑣃𑣕𑣂𑣁𑣖𑣃 𑣂𑣃𑣖𑣏𑣅 𑣌𑣁 𑣌𑣇𑣓𑣔𑣃.𑣌𑣍-𑣃 ।

𑣡𑣢% 𑣆𑣇𑣈𑣉 𑣂𑣃𑣖𑣏𑣅 𑣖𑣋𑣎 𑣄𑣅𑣂𑣔𑣃𑣎 𑣆𑣅𑣖𑣐𑣃 𑣐𑣇𑣗𑣃.𑣈 𑣖𑣅 𑣒𑣃. 𑣡00.00 𑣐𑣇𑣘 𑣄𑣃.𑣍𑣋𑣈 𑣏𑣅 𑣒𑣃. 𑣡𑣢.00 𑣆𑣇𑣈𑣉 𑣅𑣐 𑣊𑣇𑣕𑣇𑣍-𑣃 । 𑣆𑣅𑣖𑣐𑣃 𑣐𑣇𑣗𑣃.𑣈 𑣖𑣅 𑣌𑣃𑣙 𑣊𑣃𑣄𑣃𑣍 𑣂𑣔𑣃𑣎 𑣌𑣃𑣖 𑣆𑣅𑣖𑣐𑣃 𑣏𑣃𑣕𑣁𑣐 𑣎𑣁𑣚𑣃 𑣒𑣃. 𑣡00.00 𑣐𑣇𑣘 𑣊𑣃𑣄𑣃 𑣓𑣔𑣁𑣌𑣍 𑣒𑣃. 𑣡𑣢x𑣢=𑣒𑣃. 𑣢𑣦.00 𑣆𑣇𑣈𑣉 𑣅𑣐𑣏𑣅 𑣊𑣇𑣕𑣇𑣍-𑣃 ।

𑣎𑣁𑣚𑣃 𑣂𑣃𑣖𑣏𑣅 𑣒𑣃. 𑣡00.00 𑣌𑣁𑣈𑣁𑣄 𑣏𑣅 𑣓𑣇𑣈𑣋 𑣒𑣃. 𑣥00.00 𑣖𑣋𑣎 𑣊𑣇𑣕𑣇𑣍-𑣃 𑣅𑣎𑣂𑣔𑣃𑣎 𑣐𑣋𑣈 𑣆𑣅𑣖𑣐𑣃 𑣐𑣇𑣗𑣃.𑣈 𑣖𑣅 𑣒𑣃. 𑣡𑣢x𑣥=𑣒𑣃. 𑣥𑣧.00 𑣆𑣇𑣈𑣉 𑣊𑣇𑣕𑣇𑣍-𑣃 । 𑣌𑣃𑣖 𑣆𑣅𑣖𑣐𑣃 𑣐𑣇𑣗𑣃.𑣈 𑣖𑣅𑣈𑣁 𑣒𑣃. 𑣡𑣢x𑣥x𑣢=𑣒𑣃.𑣢𑣢.00 𑣆𑣇𑣈𑣉 𑣅𑣐 𑣊𑣇𑣕𑣇𑣍-𑣃 ।

∴ 𑣐𑣋𑣈 𑣆𑣅𑣖𑣐𑣃 𑣖𑣅 𑣆𑣇𑣈𑣉 = 𑣂𑣃𑣖𑣏𑣅 x 𑣐𑣇𑣘

𑣍𑣇'𑣒 𑣆𑣇𑣈𑣉 = 𑣂𑣃𑣖𑣏𑣅 x 𑣐𑣇𑣘 x 𑣁𑣂𑣏𑣁

𑣡𑣢% 𑣆𑣇𑣈𑣉 𑣂𑣃𑣖𑣏𑣅 𑣒𑣃. 𑣥00.00 𑣖𑣋𑣎 𑣄𑣅𑣂𑣔𑣃𑣎 𑣌𑣃𑣖 𑣆𑣅𑣖𑣐𑣃 𑣐𑣇𑣗𑣃.𑣈 𑣖𑣅 𑣊𑣃𑣄𑣃 𑣄𑣅𑣂𑣔𑣃𑣎 –

𑣐𑣇𑣘 = 𑣒𑣃. 𑣥00.00

𑣂𑣃𑣖𑣏𑣅 = 𑣡𑣢%

𑣁𑣂𑣏𑣁 = 𑣢 𑣆𑣅𑣖𑣐𑣃

𑣍𑣇'𑣒 𑣆𑣇𑣈𑣉 = 𑣒𑣃. $(\frac{𑣡𑣢}{𑣡00} x 𑣥00 x 𑣢)$ = 𑣒𑣃. 𑣢𑣢.00

𑣓𑣃𑣊𑣃'𑣍𑣅 𑣆𑣇𑣈𑣉 𑣂𑣃𑣖𑣌𑣃𑣖 𑣖𑣅 𑣆𑣇𑣈𑣉, 𑣂𑣃𑣖𑣏𑣅, 𑣐𑣇𑣘 𑣃𑣖 𑣁𑣂𑣏𑣁 𑣂𑣔𑣁𑣎 𑣛𑣅𑣕𑣃 𑣌𑣃𑣜𑣃𑣕 𑣏𑣃𑣊𑣅'𑣎 𑣂𑣔𑣃𑣎 𑣃𑣖𑣐𑣋𑣈𑣒𑣃𑣙 𑣁𑣜𑣁𑣂 𑣈𑣃𑣝𑣅𑣍𑣁𑣍-𑣃 ।

𑣈𑣃.𑣕𑣂𑣃. – 𑣡

𑣆𑣃𑣕𑣂𑣁𑣖𑣃 𑣆𑣃𑣖𑣐𑣃 𑣖𑣅 𑣥 𑣆𑣇𑣈𑣉 𑣂𑣃𑣖𑣏𑣅 𑣒𑣃. 𑣦𑣦0.00 𑣖𑣅𑣕𑣃𑣍 𑣥 $\frac{𑣡}{𑣢}$ 𑣆𑣅𑣖𑣐𑣃 𑣖𑣅𑣎𑣃𑣍 𑣆𑣇𑣈𑣉 𑣏𑣋𑣎𑣃.𑣍 ?

ᱡᱚᱸᱜᱮ ᱢᱩᱞ = ᱴᱟ. ᱖᱕᱐.᱐᱐

ᱠᱟᱨᱛᱮ = ᱘%

ᱚᱠᱛᱚ = ᱓ $\frac{᱑}{᱒}$ ᱥᱮᱨᱢᱟ

∴ ᱥᱩᱫ = ᱠᱟᱨᱛᱮ x ᱢᱩᱞ x ᱚᱠᱛᱚ

= ($\frac{᱘}{᱑᱐᱐}$ x ᱖᱕᱐ x ᱓ $\frac{᱑}{᱒}$) ᱴᱟᱠᱟ

= ᱴᱟ. ($\frac{᱘}{᱑᱐᱐}$ x ᱖᱕᱐ x $\frac{᱗}{᱒}$)

= ᱴᱟ. ᱑᱘᱒.᱐᱐

ᱫᱟ.ᱞᱠᱟ. – ᱒

ᱥᱟᱞᱠᱚᱨᱟ ᱑᱕ ᱠᱟᱨᱛᱮ ᱴᱟ. ᱙᱙᱙.᱐᱐ ᱨᱮᱞᱟᱜ ᱖ ᱥᱮᱨᱢᱟ ᱘ ᱪᱟᱸᱫᱚ ᱨᱮᱞᱟᱜ ᱥᱩᱫ ᱛᱷᱡᱟ.ᱜ ? ᱖ ᱥᱮᱨᱢᱟ ᱘ ᱪᱟᱸᱫᱚ ᱢᱩᱪᱟ.ᱫ ᱨᱮ ᱛᱷᱡᱟ.ᱜ ᱴᱟᱠᱟ ᱣᱟᱯᱟ ᱯᱮᱠᱫᱟᱡ ᱨᱷᱡ ᱣᱟᱯᱟᱜ-ᱟ ?

ᱡᱚᱸᱜᱮ ᱢᱩᱞ = ᱴᱟ. ᱙᱙᱙.᱐᱐

ᱠᱟᱨᱛᱮ = ᱑᱕%

ᱚᱠᱛᱚ = ᱖ ᱥᱮᱨᱢᱟ ᱘ ᱪᱟᱸᱫᱚ = ᱖ $\frac{᱘}{᱑᱒}$ ᱥᱮᱨᱢᱟ

= ᱖ $\frac{᱒}{᱓}$ ᱥᱮᱨᱢᱟ = $\frac{᱒᱐}{᱓}$ ᱥᱮᱨᱢᱟ ।

ᱥᱩᱫ = ᱠᱟᱨᱛᱮ x ᱢᱩᱞ x ᱚᱠᱛᱚ

= ($\frac{᱑᱕}{᱑᱐᱐}$ x ᱙᱙᱙ x $\frac{᱒᱐}{᱓}$) ᱴᱟᱠᱟ

= ᱴᱟ. ᱙᱙᱙.᱐᱐

ᱥᱩᱫᱢᱩᱞ = ᱢᱩᱞ + ᱥᱩᱫ

= ᱴᱟ. ᱙᱙᱙.᱐᱐ + ᱴᱟ. ᱙᱙᱙.᱐᱐

= ᱴᱟ. ᱑᱙᱙᱘.᱐᱐

ᱴᱟ. ᱑᱙᱙᱘.᱐᱐ ᱣᱟᱯᱟ ᱯᱮᱠᱫᱟᱡ ᱨᱷᱡ ᱫᱚ ᱣᱟᱯᱟᱜ-ᱟ ।

ᱫᱟ.ᱞᱠᱟ. – ᱓

ᱥᱮᱨᱢᱟ ᱨᱮ ᱙% ᱠᱟᱨᱛᱮ ᱴᱟ. ᱑᱕᱐᱐.᱐᱐ ᱨᱷᱡ ᱠᱟᱛᱮ ᱢᱷᱫ ᱣᱚᱞ ᱴᱟ. ᱕᱖᱐.᱐᱐ ᱥᱩᱫ ᱮ ᱮᱢ ᱠᱮᱜ-ᱟ । ᱩᱡᱷ ᱛᱷᱡᱟ.ᱜ ᱥᱮᱨᱢᱟ ᱯᱟ.ᱜᱷᱫ ᱨᱷᱡᱮ ᱣᱟᱛᱟᱣ ᱯᱮᱜ-ᱟ ?

[illegible] – [illegible] [illegible]. [illegible]00.00 [illegible] [illegible].00 [illegible] ।

[illegible] = [illegible]%

[illegible] [illegible].00 [illegible] [illegible].00

∴ [illegible]. [illegible]00.00 [illegible]

([illegible]. [illegible].00×[illegible]) [illegible] ।

[illegible]. ([illegible].00÷[illegible]) [illegible]

∴ [illegible]. [illegible].00 [illegible] ($\frac{[illegible]}{[illegible]\times[illegible]}$) [illegible]

∴ [illegible]. [illegible]0.00 [illegible] ($\frac{[illegible]0}{[illegible]\times[illegible]}$) [illegible]

= $\frac{[illegible]0}{[illegible]}$ [illegible] = [illegible] [illegible]

[illegible]. – [illegible]

[illegible]. [illegible]00.00 [illegible] [illegible].00 [illegible] ?

[illegible] – [illegible]. [illegible]00.00 [illegible] ।

[illegible]. [illegible]00.00 [illegible] = [illegible]. [illegible].00

∴ [illegible]. [illegible]00.00 [illegible] = [illegible] [illegible].00÷[illegible]

= [illegible]. [illegible].00

[illegible]

[illegible]. [illegible] ।

([illegible]) [illegible] = [illegible]. [illegible]00.00

[illegible] = [illegible]%

[illegible] = [illegible] [illegible]

([illegible]) [illegible] = [illegible]. [illegible].00

[illegible] = [illegible]%

[illegible] = [illegible] [illegible]

([illegible]) [illegible] = [illegible]. [illegible]0.00

[illegible] = [illegible]%

[illegible] = [illegible] [illegible]

([illegible]) [illegible] = [illegible]. [illegible]0.00

[illegible] = [illegible] %

[illegible] = [illegible]0 [illegible]

[illegible]. [illegible] 000 [illegible] ?

[illegible]. [illegible] 00 [illegible] ?

[illegible]. [illegible] 0 [illegible] ?

[illegible]. [illegible]0 [illegible]. [illegible]00.00 [illegible] ? [illegible] ?

[illegible]. [illegible]% [illegible]. [illegible],000.00 [illegible] ?

7. [illegible]

8. [illegible]

9. [illegible]

10. [illegible]

11. [illegible]

12. [illegible]

ᱥᱟᱢᱟᱢ ᱚᱟᱮᱵᱨ
ᱡᱟᱱᱟᱢ ᱤ'ᱣᱟ: ᱐᱒.᱐᱙.᱑᱙᱖᱐ ᱥᱤᱚ

ᱡᱟᱱᱟᱢ ᱟ.ᱛᱩ – ᱣᱩᱥᱷᱚᱫᱩᱚ'ᱚᱟᱵ, ᱚᱟᱵ ᱯᱩᱟᱜ – ᱚᱟᱣᱚᱤᱚᱨᱚᱟ
ᱮᱨᱚ᱐ᱨ – ᱚᱤᱮᱷᱵ, ᱣᱚᱵᱷᱵᱚᱫᱩ'ᱢᱡ, ᱷᱚᱤᱮᱟ–᱒᱗᱒᱐᱔᱙

ᱮᱤᱚᱩᱜ ᱚᱟᱮᱟ – ᱵᱩᱜᱫᱷᱮᱟᱚᱫᱩᱷᱵ, ᱩᱟᱚ. ᱮᱩ.–᱒᱒
ᱚᱟᱵ ᱯᱩᱟᱜ – ᱵᱩᱵᱤ'ᱫᱷᱯᱤᱵᱟ., ᱚᱟᱵᱤᱫᱩᱟ, ᱣᱚᱵᱷᱵᱚᱫᱩᱢᱡ, ᱚᱚᱤᱮᱟ

ᱩᱯᱩᱜ – ᱑ ᱵᱫᱩᱮ ᱜ (᱑᱙᱘᱒–᱑᱙᱙᱒)
ᱱᱟ'ᱜᱩᱵᱫᱟᱯᱤ ᱷᱷ.ᱫᱤ. ᱮᱯᱷᱵ, ᱣᱟ.ᱱᱵᱟ.ᱩᱚᱨᱵᱟ, ᱵᱟᱢᱯᱵᱨᱯᱟ
ᱜ ᱵᱫᱩᱮ ᱣᱨᱱᱵᱤᱵ (᱑᱙᱙᱒–᱑᱙᱙᱙)
ᱫᱫᱩᱵᱤᱵ ᱣᱩᱥᱩᱮ ᱚᱤᱟᱵᱟᱫᱤᱱᱫᱩ, ᱚᱟᱯᱤᱢᱩᱚᱤ, ᱵᱟᱢᱯᱵᱨᱯᱟ, ᱮᱷᱮᱟᱩᱵᱜᱩᱚ
+᱒ ᱚᱨᱫᱟᱵ (᱑᱙᱙᱙–᱑᱙᱙᱘) ᱟᱫᱤᱵᱩᱢᱯᱟᱯ ᱵᱯᱨᱢ, ᱚᱩᱥᱩᱟᱟ, ᱣᱚᱵᱷᱵᱚᱫᱩ'ᱢᱡ
+᱓ ᱚᱨᱫᱟᱵ (᱑᱙᱘᱙–᱒᱐᱐᱑) ᱣᱩᱥᱟᱵᱟᱢᱟ ᱫᱷᱵᱮᱩ ᱢᱩ'ᱟᱩᱵᱩ ᱣᱩᱥᱟᱚᱤᱟᱵᱟᱯᱩᱜ,
ᱚᱟᱵᱤᱫᱩᱟ, ᱣᱚᱵᱷᱵᱚᱫᱩ'ᱢᱡ
ᱢᱵᱤ ᱐᱒ – ᱯᱟᱚᱟᱵ ᱢᱟᱮᱩᱢ – ᱑᱙᱙᱖, ᱢᱨ᱐ᱟᱮ ᱢᱟᱮᱩᱢ – ᱑᱙᱙᱖
ᱚᱟᱮᱟᱯᱟ – ᱑᱙᱙᱘, ᱢᱨ᱐ᱟᱮ ᱚᱟᱮᱟᱯᱟ – ᱑᱙᱙᱖, ᱮᱩᱮᱵ – ᱒᱐᱐᱐
ᱩᱯᱩᱜ ᱚᱩ'ᱜᱨ – ᱨᱣ. ᱒. (ᱮᱟᱮᱚᱟᱵᱤ), ᱮᱩᱵᱚᱫ ᱩᱚᱤᱮᱟ ᱷᱨᱮᱤᱚᱫᱟᱵᱮᱤᱱᱤ,
ᱚᱟᱵᱤᱫᱩᱟ, ᱣᱚᱵᱷᱵᱚᱫᱩ'ᱢᱡ
ᱯᱟᱢ ᱟ.ᱮᱷᱯᱩᱜ – ᱢᱤᱚᱟ.ᱵ ᱚᱟᱚᱩᱥᱤ
ᱩᱮᱟ ᱮᱟᱩᱚᱨ ᱢᱵᱤ ᱢᱫᱟᱵᱟᱩ ᱵᱟ.ᱣᱤ

ᱢᱫᱟᱫᱟ ᱮᱩᱟᱩᱵ ᱟᱵᱟᱮ ᱫᱩᱚᱩᱚ ᱵᱩ:
᱑. ᱢᱤᱚᱟ.ᱵ ᱢᱨᱣᱨᱟ (ᱥᱟ.ᱱᱤᱜ–᱑)
᱒. ᱢᱤᱵᱤ ᱟ.ᱵᱮᱤ
᱓. ᱜᱟᱮᱟᱜ ᱟᱵ ᱢᱤᱱᱫᱤ ᱮᱟᱵᱟᱣ
᱔. ᱢᱤᱵᱤ ᱚᱷᱯᱟ. (ᱨᱚᱩᱥᱩᱚ ᱥᱟ.ᱱᱤᱣ)
᱕. ᱟ.ᱩᱟ. ᱚᱫᱩᱫᱨ
᱖. ᱚᱟ:ᱜᱤ ᱵᱨ... (ᱩᱮᱩᱚᱥᱨ)

ᱯᱟᱣᱚᱜ ᱚᱷᱱᱟ. :
Hans Hansli Book Store
Stationbazar, Baripada, Mayurbhanj,Odisha.
Mob: 9439284862, 9937134594